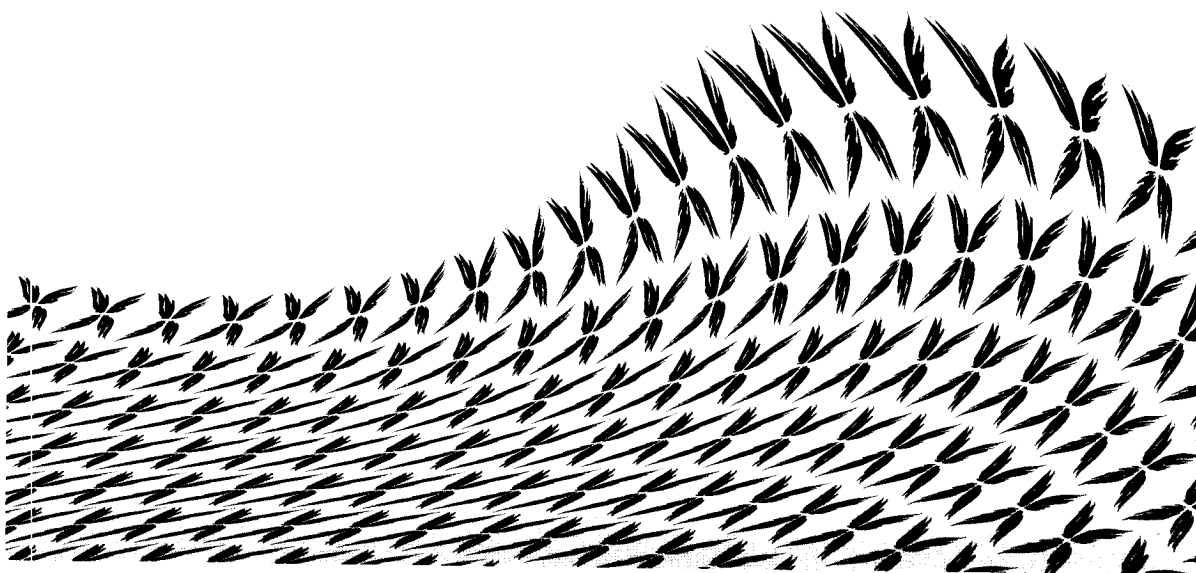




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Annual Report 2008



Ixia is a leading, global provider of IP performance test and emulation systems that measure the performance, capability, and conformance of triple-play networks and the devices attached to them, as well as the applications that run over them.

SEC Mail Processing
Section

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Annual Report
Financial Highlights

(in thousands, except per share and employee data)	2008	2007	2006
Total revenues	\$175,867	\$174,121	\$180,132
Net (loss) income	(15,895)	7,006	13,481
Diluted (loss) earnings per share	(0.24)	0.10	0.20
Diluted weighted average shares outstanding	65,087	69,386	68,792
Non-GAAP net income*	\$14,886	\$22,205	\$31,609
Non-GAAP diluted earnings per share*	0.23	0.32	0.46
Cash, cash equivalents and investments	\$206,298	\$248,500	\$221,701
Total assets	328,426	369,440	349,059
Total shareholders' equity	273,196	316,500	300,789
Net cash from operating activities	24,335	45,769	33,911
Employees at year end	769	756	750

* Excludes the effects of stock-based compensation, the amortization or impairment of intangible assets, and the impairment charges related to certain investments. See reconciliation of GAAP to Non-GAAP net (loss) income and diluted (loss) earnings per share below.

**Reconciliation of Non-GAAP to GAAP Net Income
(Loss) and Diluted Earnings (Loss) per Share**

(in thousands, except per share data)	2008	2007	2006
Non-GAAP net income	\$14,886	\$22,205	\$31,609
Amortization and impairment of intangible assets	(5,664)	(10,371)	(6,450)
Stock-based compensation	(10,645)	(13,034)	(18,023)
Other-than-temporary impairment on investments	(20,243)	-	-
Income tax effect	5,771	8,206	6,345
GAAP net (loss) income	<u>\$(15,895)</u>	<u>\$7,006</u>	<u>\$13,481</u>
Non-GAAP diluted earnings per share	\$0.23	\$0.32	\$0.46
Amortization and impairment of intangible assets	(0.09)	(0.15)	(0.09)
Stock-based compensation	(0.16)	(0.19)	(0.26)
Other-than-temporary impairment on investments	(0.31)	-	-
Income tax effect	0.09	0.12	0.09
GAAP diluted (loss) earnings per share	<u>\$(0.24)</u>	<u>\$0.10</u>	<u>\$0.20</u>

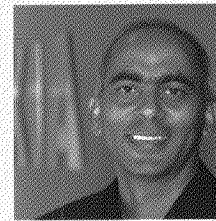
Dear Fellow Shareholders,

Over the last several months we have seen the economic turbulence in the financial markets spill over into the global economy, and we expect to see continued volatility and uncertainty in our end markets over the next few quarters. But the fundamental drivers of our industry – demand for greater bandwidth fueled by new real time interactive communications applications – remain strong. Buoyed by a strong balance sheet, with dedication to customer delight, and driven by technological innovation, Ixia is well positioned to withstand these difficult times and to prosper when the global economy recovers.

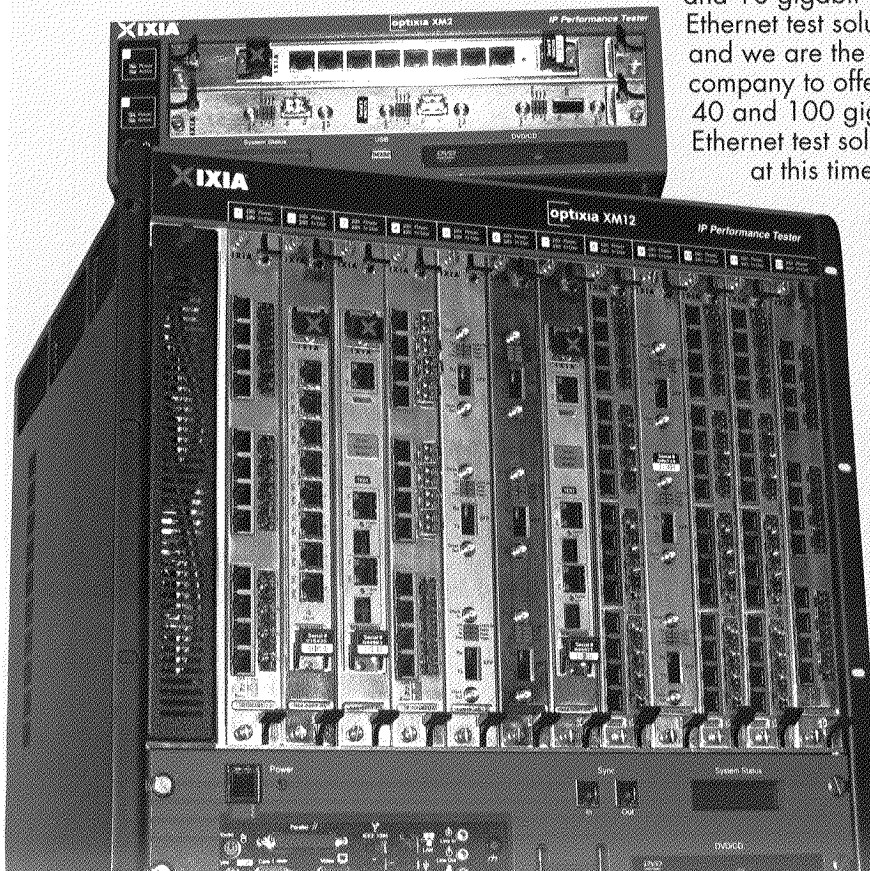
As a Company, we made the decision very early in our history to invest in Ethernet and IP technology. This has proven to be the right decision. While Ethernet has been a standard LAN technology for over three decades, the last several years have seen Ethernet take over in the Metro and Wide Area markets also, with many indicators pointing to Ethernet as the Internet backbone of the future. Demand for Ethernet networks has been driven by rapid growth of business and consumer broadband applications utilizing data, voice and, in particular, video traffic.

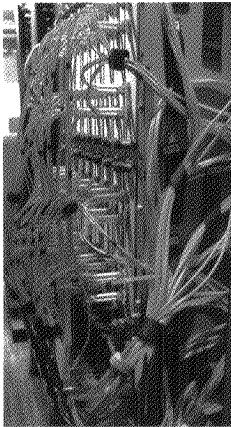
Ixia has grown with the growth of Ethernet and IP technology to meet the ever changing needs of our customers, from our initial offerings of 10/100 megabit Ethernet up to 1 gigabit, 10 gigabit and now 40 and 100 gigabit Ethernet test products. Our relentless investment in Ethernet has made us the acknowledged market leader in both gigabit and 10 gigabit

Ethernet test solutions, and we are the only company to offer 40 and 100 gigabit Ethernet test solutions at this time.



Atul Bhatnagar
President and
Chief Executive Officer





Our new 10 gigabit Ethernet IxYukon cards, offering up to 8 ports of traffic generation per card, are one of the most successful new products in Ixia's history. The IxYukon was introduced in the second quarter of 2008, and by the fourth quarter it was our best selling product line. Achieving a density of up to 96 ports per chassis, IxYukon is the most scalable and densest 10 gigabit solution on the market and represents a 4 to 1 density advantage over the nearest competition.

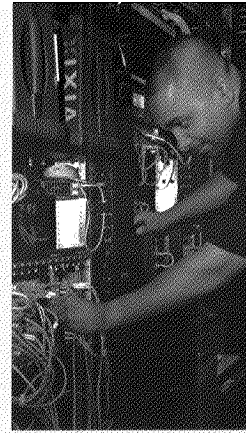
Also launched in 2008, our 40 and 100 gigabit test solutions are examples of how we have been able to unleash the creativity and enthusiasm of Team Ixia to drive innovative, industry leading solutions. In late 2007, we established Ixia Labs, free from regular product deadlines, and focused on developing breakthrough solutions. In less than 12 months, we demonstrated the first 100 gigabit Ethernet test card at industry trade shows, and less than a few months after that we were doing customer presentations around the world and booking our first order. This tiger team approach is one that we will now apply to other areas, both hardware and software, to release the entrepreneurial spirit of our engineers.

But it is not about just speeds and feeds. As more intelligence was built into the network, and as more advanced communication and entertainment services were developed and deployed, we produced a broad suite of test solutions for assessing network infrastructure and applications with realistic end user traffic. Today our solutions can emulate a network of routers to test the capabilities of new infrastructure hardware, or we can emulate hundreds of thousands of virtual internet users to test a new network application, such as voice or video over IP, before it is rolled out to real users in a live network.

Our products are also making the transition from the lab to the live network with our innovative IxRave solution. As more converged IP services are rolled out to business and home users, it is clear that legacy network monitoring solutions do not meet the challenges of today's converged multi-play applications and demanding enterprise



network requirements. Building on our years of proven leadership in testing IP networks and protocols, IxRave combines innovative centralized test engines, virtual software endpoints, and light-weight probes to achieve full end-to-end network coverage cost effectively. IxRave allows the service provider to quickly isolate and resolve the source of problems from a centralized location that is integrated directly into existing customer management systems, processes, and support teams. In many cases, armed with real time data from IxRave, service providers can make quick changes in their networks to resolve end user problems without costly visits to end user locations. For the service provider, this means a very real return on investment driven by lower field service costs, higher quality service, and reduced customer churn.



During 2008, we also opened two new iSimCity executive briefing centers and customer proof-of-concept labs adjacent to our sales offices in Santa Clara, California, and Bangalore, India. Providing customers with access to hundreds of test ports, and millions of virtual users, iSimCity combines carrier grade scale with real-world internet traffic emulation to provide quick proof to our customers whether their products meet the challenges of today's converged, multi-play communications environment. iSimCity has been extremely well received by customers needing large scale testing, and it was named one of eWeek's Top 10 new products of the year for 2008.

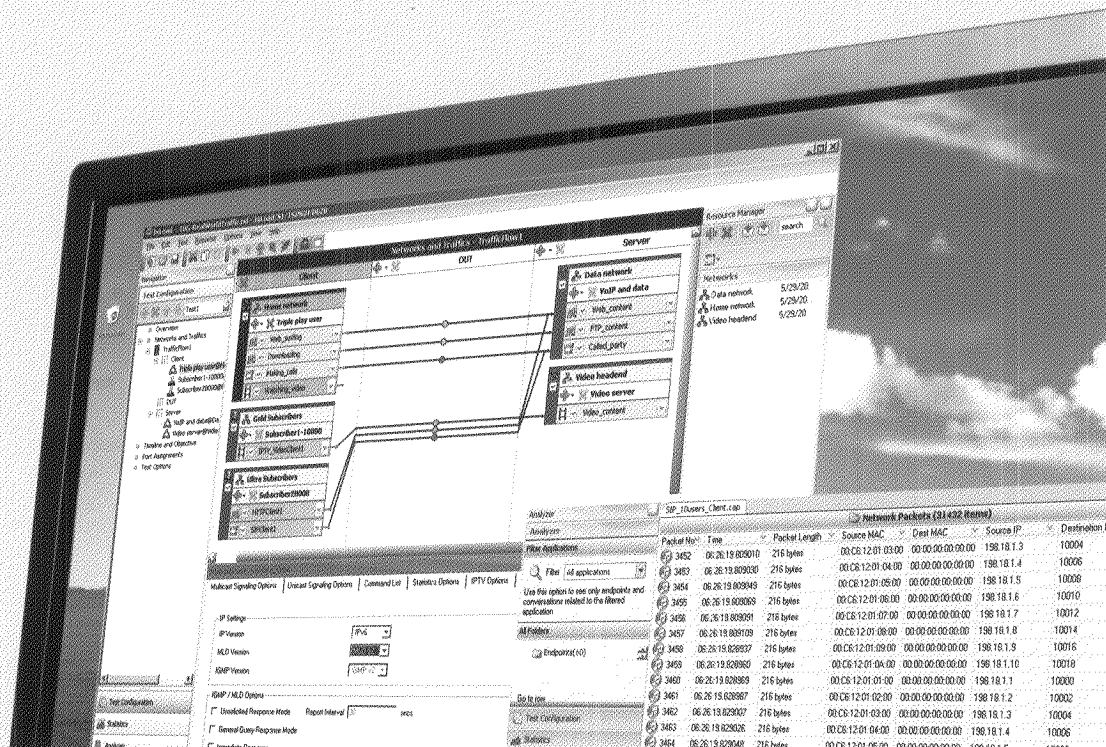
But in this business environment, we need to keep focused on another key asset: our strong customer relationships. We just completed our second customer satisfaction survey. The results were very positive and reflect the investment we have made in our customer delight programs. We surveyed over 200 customers and found a 12 percent increase in customers who were "delighted" with Ixia as a company, as well as an increase in our customers' willingness to recommend Ixia products and services. At Ixia, we believe in measuring, monitoring and improving everything, including our customer relationships.



Lately, we have been telling our employees, customers, and investors the same simple message. Ixia is committed to continued investments in its people and technology so that we can continue to meet the ever expanding needs of our customers. At the same time, we are committed to delivering growth and profits for our investors. While significant growth may require improvement in the economic environment, we will start by enhancing profitability before then. In 2009, it is our goal to retain and motivate our people, deliver the industry leading solutions our customers need, and generate cash flow and profits for our investors. With the continued support of our employees, customers, and investors, we look forward to the challenges and opportunities that 2009 and the years beyond will bring, and we fully hope and expect to emerge from these trying times as a better, stronger and more profitable company.

Sincerely,

Atul Bhatnagar
President and
Chief Executive Officer



UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549

FORM 10-K

(Mark One)

☒ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the Fiscal Year Ended December 31, 2008

OR

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____ to _____
Commission File Number 000-31523

IXIA

(Exact name of Registrant as specified in its charter)

California

(State or other jurisdiction of incorporation or organization)

95-4635982

(I.R.S. Employer Identification No.)

26601 West Agoura Road, Calabasas, CA 91302

(Address of principal executive offices, including zip code)

Registrant's telephone number, including area code: (818) 871-1800

The Nasdaq Stock Market LLC

(Name of Exchange on which Registered)

Securities registered pursuant to Section 12(b) of the Act: Common Stock, without par value

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the Registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☐ No ☒

Indicate by check mark if the Registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Exchange Act. Yes ☐
No ☒

Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of Registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☒

Indicate by check mark whether the Registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See definition of "large accelerated filer," "accelerated filer," and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☐ Accelerated filer ☒ Non-accelerated filer ☐ Smaller reporting company ☐

(Do not check if a smaller reporting company)

Indicate by check mark whether the Registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes ☐ No ☒

The aggregate market value of the shares of the Registrant's Common Stock held by nonaffiliates of the Registrant as of June 30, 2008, computed by reference to the closing sales price on the Nasdaq Global Select Market on that date, was approximately \$233,143,803.

As of March 2, 2009, the number of shares of the Registrant's Common Stock outstanding was 62,991,814.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Registrant's Proxy Statement delivered to shareholders in connection with the Annual Meeting of Shareholders to be held on May 28, 2009 are incorporated by reference into Part III of this Annual Report.

IXIA

FORM 10-K

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PART I

Item 1. Business

Overview

We are a leading provider of test systems for IP-based infrastructure and services. Our hardware and software allow our customers to test and measure the performance, functionality, service quality and conformance of Internet Protocol (IP) equipment and networks, and the applications that run over them. Our solutions generate, capture, characterize and analyze high volumes of realistic network and application traffic, identifying problems, assessing performance, ensuring functionality and interoperability, and verifying conformance to industry specifications. We offer hardware platforms with interchangeable media interfaces, utilizing a common set of applications and Application Programming Interfaces (APIs) that allow our customers to create integrated, easy-to-use automated test environments. The networks that our systems analyze primarily include Ethernet networks operating at speeds of up to 10 gigabits per second that carry data traffic over optical fiber or electrical cable. We also offer applications that test and verify traditional Time-Division Multiplexing (TDM) voice-based networks and voice over IP technology, devices and systems. These applications also assess interoperability, assist in troubleshooting, allow service optimization and perform call traffic monitoring of video telephony. Customers also use our suite of software applications to test and verify web, Internet, security and business applications.

During the year ended December 31, 2008, we shipped our products to approximately 775 existing and new customers, and based on product shipments for the year ended December 31, 2008, our significant customers by category included:

- Leading network equipment manufacturers such as Cisco Systems, Alcatel-Lucent, and Juniper Networks;
- Semiconductor manufacturers such as Broadcom, LSI Corporation, and Intel;
- Telephony equipment manufacturers such as Motorola, Ericsson, and Nokia;
- Voice and broadband service providers such as AT&T, NTT, and Verizon;
- Cable operators such as Comcast Cable, Time Warner, and Cablevision Systems;
- Enterprises such as Wells Fargo, Barclays, and General Electric; and
- Government contractors, departments and agencies such as General Dynamics, the U.S. Navy, and Lockheed Martin.

Communications and entertainment delivery is rapidly moving to an all IP infrastructure. To achieve "utility grade" quality, this infrastructure must be thoroughly tested under realistic conditions prior to deployment. Our vision is to accelerate the convergence of all networks to IP by providing the most comprehensive, easy-to-use and automated test systems in the industry. Key growth drivers include the development and deployment of 10 to 100 Gigabit Ethernet network equipment, video over IP, voice over IP, security devices and applications, converged wireline and wireless networks, Metro, Carrier and Data Center Ethernet, and converged IP services such as voice, video and data (multiplay) to the home and wireless devices. We intend to maintain our focus on technology leadership, expand and further penetrate our customer base, leverage our strengths into adjacent areas, acquire key technology and assets, and expand our international presence.

The Increasing Need for Network and Application Testing and Measurement

The measurement and analysis of performance, functionality, service quality and conformance of networks, applications, and communication devices is important to the following groups:

- *Communications Chip Manufacturers.* At the early stages of development of new components, communications chip manufacturers use our test systems to evaluate and analyze the conformance, interoperability, and performance of their components. This occurs during the design and development phase – typically prior to integration by network equipment manufacturers.
- *Network Equipment Manufacturers (NEMs).* NEMs provide voice, video, and data service infrastructure equipment to customer network operators, service providers, and network users, who specify high standards of performance and reliability. To meet these higher standards, NEMs must ensure the quality of their products during development and manufacturing and prior to shipping. Failure to ensure the consistent functionality and performance of their products may result in the loss of customers, increased research and development costs, increased support costs and losses resulting from the return of products. NEMs use our test systems to run large-scale subscriber and service emulations, generating extreme traffic loads to verify the performance and capacity of their IP-based devices prior to deployment in production networks. Our systems are also used by NEMs in the sales and acceptance process to demonstrate to their customers (e.g., service providers and enterprises) how their products will operate under real-world conditions. Our conformance test suites are used by NEMs to ensure that their devices conform to published standards – ensuring that they will be interoperable with other equipment.
- *Network operators and service providers (Service Providers).* Service Providers seek to provide their customers with a growing variety of high quality, advanced network services. Failure to provide satisfactory service can be costly and may result in high subscriber churn rates and reduced Average Revenue per User (ARPU). To ensure desired service levels and overall quality of experience are acceptable, Service Provider R&D and network engineering groups must verify the performance and functionality of staged networks during the equipment selection and network design process prior to deployment. Service Providers use our test systems to emulate millions of subscribers to realistically predict end user quality of experience delivered by their IP-based infrastructure and services. Increasingly, Service Provider operations groups use Ixia's products to diagnose issues in their production networks by executing in-service tests similar to those conducted prior to deployment.
- *Enterprises and Government.* These large Service Provider customers spend significant amounts on networks and network services. They deploy LANs and WANs that rival some Service Provider networks in size and complexity. These customers use Ixia's solutions in much the same way as Service Providers, verifying the performance and functionality of network equipment and making sure that new networks, services and applications will perform as expected. They also use our products to test the performance and scalability of their internal applications, often based on proprietary protocols.

Characteristics Demanded of Network and Application Test and Measurement Equipment

As networks and network devices become more intelligent and service-aware, performance, functionality, interoperability, and conformance testing solutions must reproduce subscriber traffic with increasing fidelity. Network testing solutions must also be highly scalable and capable of generating and analyzing large amounts of data at high speeds over increasingly complex configurations. Comprehensive, integrated testing must occur throughout network design, development, production, deployment, and operation stages. Because this testing

and verification must take place across multiple layers of the network infrastructure and for all network protocols, network testing solutions are also required to be highly flexible, extensible and modular. This rapid evolution of complex network technologies and protocols, including leading-edge technologies such as 100 Gigabit Ethernet, Metro, Carrier, and Data Center Ethernet, voice over IP, and video over IP, has resulted in the need for an integrated platform solution that is easy to use with minimal training and setup.

The Ixia Solution

We are a leading provider of test systems for IP-based infrastructure and services. Our hardware and software allow our customers to test and measure the performance, functionality, service quality and conformance of Internet Protocol (IP) equipment and networks, and the applications that run over them. Our solutions generate, capture, characterize and analyze high volumes of realistic network and application traffic, identifying problems, assessing performance, ensuring functionality and interoperability, and verifying conformance to industry specifications. We offer hardware platforms with interchangeable media interfaces, utilizing a common set of applications and Application Programming Interfaces (APIs) that allow our customers to create integrated, easy-to-use automated test environments. The networks that our systems analyze primarily include Ethernet networks operating at speeds of up to 10 gigabits per second that carry data traffic over optical fiber or electrical cable. We also offer applications that test and verify traditional Time-Division Multiplexing (TDM) voice-based networks, and voice over IP technology, devices and systems. These applications also assess interoperability, assist in troubleshooting, allow service optimization and perform call traffic monitoring of video telephony. Customers also use our suite of software applications to test and verify web, Internet, security and business applications.

Our test systems provide the following key benefits to our customers:

Versatile High Performance. Our test systems generate and receive data traffic at wire speed, which is the maximum rate that data traffic can be transmitted over a network medium. Our systems provide accurate analysis across multiple layers of the overall network and of individual network components in real time. Our systems can be configured to either generate programmed packets of data or conduct complete sessions.

Our systems analyze each discrete packet of information, thereby allowing our customers to precisely measure the performance of their networks and individual network components. This precision allows customers to accurately measure critical quality of service parameters such as throughput, latency, loss, and jitter and to check data integrity and packet sequencing throughout the network, as well as to locate various network problems.

When used for meaningful application sessions, or conversations between network endpoints, our systems emulate highly complex and specialized applications such as those used to transfer electronic mail, browse the Internet, convey voice and video information, and manage databases. This emulation allows our customers to accurately measure critical characteristics of their networks such as session setup rate, session tear down rate, and session capacity. By analyzing the content of these sessions, our customers can also accurately measure quality of service (QoS) and media quality.

Highly Scalable. Each of our interface cards provides one or more ports through which our systems generate and receive data traffic. Each physical port contains its own dedicated logic circuits, with no shared resources. Our customers can easily scale the size of their test bed or the amount of data traffic generated by inserting additional interface cards. By connecting multiple chassis and synchronizing over a thousand ports to operate simultaneously, our customers can simulate extremely large-scale networks. Our GPS-based components even allow our chassis to be distributed throughout the world, while maintaining the close time synchronization necessary for precision tests. We believe that our systems offer our customers the highest port density and most scalable space- and energy-efficient systems available. In addition, our client-server architecture allows multiple

users in the same or different geographic locations to simultaneously access and operate different ports contained in the same chassis to run independent tests.

Highly Customizable. Each of our current generation of interface cards includes a microprocessor for each interface port. This microprocessor uses the LINUX operating system, enabling us to rapidly develop test applications and to recompile code from our partner companies or acquisitions for use on our platform. We believe that the use of this open and well-known operating system makes it easy to customize our performance analysis systems.

Hardware Platform. Our solutions typically operate on a single hardware platform with interchangeable interfaces, utilizing a common set of applications and Application Programming Interfaces (APIs). Our architecture enables the emulation of millions of network users on a single scalable platform, with a mixture of both network and application layer traffic. This architecture offers our customers an integrated test environment that might otherwise require multiple products to cover the same test scenarios. We believe that our single platform solution decreases overall cost while increasing productivity and scalability, and reducing training requirements for our customers.

Highly Modular. Our hardware products consist of stackable and portable chassis, which, depending on the chassis model, can be configured with any mix of up to 16 of our interface cards. This modular design allows our customers to quickly and easily create realistic, customized test configurations. Our open architecture accelerates integration of additional network technologies into existing systems through the addition of new interface cards and distributed software.

Flexible. Our customers can easily expand the use of our systems to address changing technologies, protocols and applications without changing system hardware or replacing interface cards. This protects and optimizes the customers' investment by eliminating the need for "forklift upgrades" or the purchase of additional niche products.

Open Architecture. Our open architecture allows our customers to quickly customize, automate and extend our platform. Our customers use our APIs and applications to centrally manage, protect, automate, and extend their ever-expanding testing environments.

Ease of Automation. Our systems make it easy to create automated tests that can run unattended. We offer our customers a growing library of automated tests that simplify and streamline the test process. These tests are repeatable and the results are presented in a structured format for easy analysis. Ixia's Tool Command Language (Tcl) Application Programming Interface (API) is a comprehensive programming interface to our hardware, as well as to our software applications. The Tcl API enables libraries of automated tests to be quickly built with specificity to a customer's environment. We also offer a utility that exports configurations created in our graphical user interface (GUI) as Tcl scripts.

Ease of Use. We have designed our systems so that users can install and operate them with minimal training and setup. Our systems are easy to use and offer our customers a wide range of readily accessible pre-designed test configurations. These tests include industry standard and use case-specific tests. Users can easily configure and operate our systems to generate and analyze data traffic over any combination of interface cards or ports through our graphical user interface that features a familiar Microsoft™ Windows™ point-and-click environment. Once tests are designed in our GUIs, they can be saved for reuse or in Tcl script form for customization and even greater levels of automation.

Strategy

Our objective is to be the industry leader in providing performance, functionality, service quality, interoperability, and conformance testing solutions for IP networks and IP-based services. This includes next generation technologies such as 40 and 100 Gigabit Ethernet, Metro, Carrier and Data Center Ethernet, voice over IP, and video over IP. Key elements of our strategy to achieve this objective include the following:

Continue to Expand our Addressable Markets. We plan to further expand our addressable markets into areas of growth for IP-based products and services, such as content-aware routing and switching, networks that carry voice, video and data over IP (commonly referred to in the aggregate as multiplay), wireless, application security, and next-generation networking technologies. We also plan to apply our knowledge of these advanced IP data communication technologies to develop tools for monitoring traffic in live networks. We believe that we can leverage our core competencies in high-speed transmission protocols into leadership positions, in both our historic pre-deployment market as well as the nascent market for monitoring IP services in converged networks, as more networks and delivery of services migrate to IP.

Maintain Focus on Technology Leadership. We intend to continue to focus on research and development in order to maintain our technology leadership position and to offer performance analysis systems that address new and evolving network technologies. We intend to maintain an active role in industry standards committees such as IEEE and the Internet Engineering Task Force, and to continue our active involvement in industry forums and alliances, such as the Metro Ethernet Forum, TestLA Alliance (Test Lab Automation), Multi Service Forum, IMS Forum, WiFi Alliance and WiMAX Forum. We also plan to continue to work closely with our customers who are developing emerging network technologies, including Cisco Systems, Hewlett Packard, NTT, and Alcatel-Lucent, as well as leading edge start-up companies, to enhance the performance and functionality of our existing systems and to design future products that specifically address our customers' needs as they evolve.

Expand and Further Penetrate Customer Base. We plan to strengthen and further penetrate our existing customer relationships, particularly those with network equipment manufacturers, network operators and service providers, and to pursue sales to new customers. We plan to strengthen our customer relationships and to expand our customer base by:

- Continuing to develop and offer new and innovative systems that meet our existing and potential customers' needs,
- Expanding our sales and marketing efforts to increase penetration in under-represented vertical and geographic market segments, and
- Building upon and further strengthening our reputation and brand name recognition.

We also plan to continue our focus on customer support by maintaining and expanding the capabilities of our highly qualified and specialized internal personnel.

License and Acquire Key Technologies. We plan to continue our strategy of acquiring key technologies that expand our product offerings, address customer needs, and enhance the breadth of our evolving product portfolio. Any such acquisitions may be made in the form of partnering with industry leaders, acquiring or licensing technology assets associated with product lines, or acquiring other companies.

Expand International Market Presence. We plan to further pursue sales in key international markets, including the Europe, Middle East and Africa regions (EMEA), and the Asia Pacific region. In order to pursue sales in these markets, we intend to continue to develop and expand our relationships with key customers and distributors, as well as expand our direct sales and marketing presence within these markets.

Products

Our test systems consist of hardware and software products that allow our customers to test and measure the performance, functionality, interoperability, service quality, and conformance of their IP equipment and networks, and the applications that run over them. Our hardware platform consists largely of interchangeable interface cards which fit into a multi-slot chassis. Our chassis are metal cases that incorporate a computer, a power supply, and a backplane which connects the interface cards to the chassis. The interface cards generate, receive and analyze a wide variety of traffic types at multiple network layers. Our software applications and APIs allow our customers to create and manage integrated, easy-to-use automated test environments.

Our customers can utilize our systems either in test labs or within networks. Our systems are operated through standard computer peripheral devices, including a monitor, keyboard, and mouse. The operator of our systems establishes test parameters for the performance analysis by inputting data using the keyboard and mouse. The operator observes the results of the performance analysis using the monitor and may log results to files for post-analysis or archival. All operations that can be done interactively may also be automated through a variety of scripting interfaces and automation tools.

Our customers configure our systems based on the specific interfaces of the network equipment being tested. For example, if our customer wants to analyze the performance of a router with Ethernet interfaces, the customer would insert Ethernet interface cards into our system.

Chassis

Our primary chassis, the 12-slot XM12, provides a high density, highly flexible test platform. Operating in conjunction with our test applications, the XM12 provides the foundation for a complete, high performance test environment. A wide array of interface modules are available for the XM12. The chassis supports up to 192 Gigabit Ethernet ports, 96 10 Gigabit Ethernet ports, and 24 Packet over SONET (POS) or Asynchronous Transfer Mode (ATM) ports. These modules provide the network interfaces and distributed processing resources needed for executing a broad range of data, signaling, voice, video, and application testing from layers 2-7 of the network stack. Each chassis supports an integrated test controller that manages all system and testing resources. Resource ownership down to a per-port level, coupled with hot-swappable interface modules ensures a highly flexible, multi-user testing environment. Backward compatibility is maintained with key existing Ixia interface modules and test applications to provide seamless migration from and integration with existing Ixia test installations.

We also offer a number of other chassis products, including the 2-slot XM2, 16-slot X16, the ultra-high density, 10-slot XL10, and 4-slot 400T. A wide array of interface cards is available to populate these chassis at various port densities.

Interface Cards

We offer a number of optical and electrical interface cards. Each one of our interface cards contains from one to 24 independent traffic generation and analysis ports. These ports operate at wire speed, the maximum rate that data traffic can be transmitted over a network medium. Each port on each interface card has a unique transmit stream engine that is used to generate packets of information and a real-time receive analysis engine capable of analyzing the packets as they are received. The transmit stream engine generates millions of IP data packets or continuous test sequences at wire speed that are transmitted through the network and received by the analysis engine. When data packets have been generated, the analysis engine then measures throughput, latency, loss and jitter, and checks data integrity and packet sequence on a packet-by-packet basis. In addition, our systems measure the effectiveness of networks in prioritizing different types of traffic. Each of our current

generation interface cards also includes a microprocessor per port to generate and analyze sophisticated routing protocols, such as BGP and MPLS, as well as application traffic such as TCP/IP, HTTP and SSL.

System Management Software

Our systems are managed through graphical user interfaces that allow users to configure our chassis and interface cards to generate and analyze traffic. Each port can be independently configured to meet specific testing requirements, and results can be viewed using both tables and graphs. We also allow users to create custom and automated test applications tailored to meet their specific requirements with the commonly used Tcl programming environment.

Application Specific Test Suites

We have a comprehensive suite of software applications to address specific market segments. These applications measure and analyze the performance, functionality, interoperability, service quality, and conformance of networks, network equipment and applications that run on these networks. These measurements enable network and telephony equipment manufacturers, enterprises, network operators and service providers, and governments to evaluate the performance of their equipment and networks during the design, manufacture, and pre-deployment stages, as well as after the equipment are deployed in a network. Our segment-specific test suites are targeted at a wide range of popular testing requirements:

Video Testing

Ixia's IxLoad tests the performance of video servers, multicast routers, and the IP video delivery network. This is accomplished by emulating video servers and millions of video subscribers in video on demand and multicast video scenarios. Protocols supported include MPEG, IGMP, RTP, and RTSP.

IxChariot tests the video transport network. This is accomplished by emulating video traffic, and measuring end-to-end video quality. Measurements include throughput, latency, loss, jitter, and media delivery index (MDI).

Voice Testing

IxLoad tests the functionality of VoIP and PSTN devices and services. This is accomplished by emulating end devices and servers. Testing areas supported include SIP, SCCP (Skinny), H.323, MGCP, H.248 (MEGACO), as well as TDM and analog telephony services. Performance testing of SIP devices and infrastructure is accomplished by emulating thousands of SIP callers and callees in performance testing scenarios.

IxChariot tests the voice transport network. This is accomplished by emulating voice traffic, and measuring end-to-end voice quality. Measurements include throughput, latency, loss, jitter, and mean opinion score (MOS).

Intelligent Network Testing

IxLoad tests the performance of content-aware networks and devices including server load balancers (SLB), firewalls, web Servers, and mail servers. This is accomplished by emulating millions of clients and a variety of servers in realistic performance testing scenarios. Protocols supported include TCP, HTTP, SSL, FTP, SMTP, POP3, IMAP, RTP, RTSP, Telnet, DNS, LDAP, DHCP, SIP, MPEG, and IGMP.

Conformance Testing

IxANVL provides automated network/protocol validation. Developers and manufacturers of networking equipment and Internet devices can use IxANVL to validate protocol compliance and interoperability. IxANVL supports all industry standard test interfaces including 10Mbps/100Mbps/1Gbps/10Gbps Ethernet, ATM, Serial, Async, T1/E1 and POS. It provides conformance, negative, and regression testing on a large selection of protocols including bridging, routing, PPP, TCP/IP, IPv6, IP storage, RMON, VPN, MPLS, voice over IP, Metro Ethernet and multicast.

Security Testing

IxLoad tests the performance of stateful and deep packet inspection security devices, including firewalls, SSL gateways, virus scanners, spam filters, and intrusion detection systems (IDS). This is accomplished by emulating clients and servers, as well as through the use of distributed denial of service (DDoS) attacks. Key capabilities include the ability to mix valid user traffic with malicious traffic and to attach viruses to emails.

IxDefend tests the vulnerability, robustness, and security of network devices and systems by exercising their underlying protocols. IxDefend suites are available for 40 standard Internet protocols, such as TCP/IP, ICMP, HTTP and FTP. IxDefend looks for vulnerabilities associated with software errors that can manifest as a device or service crashes.

Application Testing

IxLoad tests the performance of enterprise applications. This is accomplished by emulating a large number of real users accessing applications. Technologies supported include JavaScript, XML, Java, Document Object Model (DOM), and databases (e.g., Oracle, SQL, Access).

Router Testing

IxNetwork tests core/edge/customer routers and layer 3 switches. This is accomplished by emulating entire network infrastructures and generating high traffic loads across these emulated topologies to verify performance. Protocols supported include IGP (OSPF, IS-IS, RIP), BGP, MPLS (including layer 2 and 3 VPNs), and IP multicast.

IxAutomate is an automated test harness that can run turnkey tests using Ixia's underlying APIs. Multiple turnkey test suites are available to execute control and data plane performance and functionality testing. Tests include route capacity, route convergence, session scalability, tunnel scalability, and data plane performance.

Layer 2-3 Security Testing

IxVPN tests IPSec VPN gateways and systems. This is accomplished by establishing and authenticating IPSec tunnels, and then generating traffic load over the tunnels to verify performance. Site-to-site and remote access VPN testing is supported, as well as DES, 3DES, and AES encryption.

IxNetwork and IxLoad test devices supporting 802.1x authentication. This is accomplished by high scalable emulation of 802.1x clients (supplicants). Authentication modes supported include MD5, TLS, TTLS, and PEAP.

Switch Testing

IxNetwork tests layer 2-3 switches and forwarding devices. This is accomplished by generating traffic load across a mesh of interfaces, and then measuring results down to a per flow basis. Protocols supported include spanning tree, multicast, and IP routing.

IxAutomate tests layer 2-3 switches in an automated fashion. A set of predefined test suites is used to execute performance and functionality tests. Tests include data plane performance, QoS functionality, address cache tests, error filtering, and VLAN functionality.

IxExplorer tests layer 2-3 switches and forwarding devices. This is accomplished by generating traffic load with very granular control of packet parameters and detailed results analysis. Measurements include throughput, latency, inter-arrival time, data integrity, and sequence checking.

Wireless Testing

IxChariot tests the wireless transport network. This is accomplished by emulating application traffic - whether data, voice, or video - and measuring end-to-end performance and quality. Measurements include throughput, latency, jitter, mean opinion score (MOS), and media delivery index (MDI).

Broadband Testing

IxNetwork and IxLoad test broadband aggregation devices including B-RAS, DSLAMs, CMTSs, and edge routers. This is accomplished by emulating millions of broadband clients and generating traffic load over those connections. Protocol support includes PPPoE, PPPoA, L2TPv2, and L2TPv3.

IxChariot tests the broadband access transport network. This is accomplished by emulating application traffic - whether data, voice, or video - and measuring end-to-end performance and quality. Measurements include throughput, latency, jitter, mean opinion score (MOS), and media delivery index (MDI).

Automated Testing

IxAutomate provides a complete automation environment for testing layer 2-3 routers, switches, and similar devices. A set of predefined test suites is used to execute performance and functionality tests. Multiple tests, whether predefined or custom developed, can be scheduled for execution together with configuration of the device under test.

Test Conductor is a comprehensive, highly scalable regression harness that is compatible with other key Ixia test tools. Test Conductor imports tests, associates them with a named regression test sequences, and allows detailed scheduling. Tests can be scheduled in series or in parallel based on a Windows Outlook™-like calendar tool. At-a-glance logs and summary reports display color-coded pass/fail results, as well as the progress of the tests within each regression. Automated device under test (DUT) configuration scripts can be scheduled to run in synchronization with the individual tests or with complete regression runs.

Our Tcl automation environment provides a comprehensive set of tools and APIs for automating testing with our hardware and software applications. Custom test libraries covering all of a customer's layer 2-7 testing requirements can be created in a single automation environment.

Most test applications contain a "ScriptGen" feature that automatically generates Tcl script code from test configurations. This accelerates the development of automation code and helps train new users in the Ixia Tcl API.

Converged Monitoring Testing

As carriers deploy additional multiplay services over advanced Ethernet networks, their existing support systems are less capable of diagnosing application layer problems. Ixia's IxRave (Remote Access Verification Engine) solution allows carriers and service providers to execute active network tests using Ixia's applications from a web-based control system that can be integrated into their existing infrastructure. IxRave Voice is a specialized version of IxRave that performs monitoring and active testing of voice over IP networks through a probeless, web-based system and features graphical display of network status.

Products in Development

We continue to develop our IP testing capabilities, and throughout 2009 we intend to remain focused on improving our position in performance, functional, interoperability, service quality, and conformance testing in the following technology areas:

- 10, 40 and 100 Gigabit Ethernet
- Carrier, Metro and Data Center Ethernet
- Layer 4 – 7
- MPLS
- VPLS
- Multicast
- IPv6
- Voice over IP
- Video over IP
- IPSec
- MACSec
- Fiber Channel over Ethernet
- Test Automation
- SSL
- Denial of Service
- WiMAX
- IMS
- Vulnerability assessment
- Energy efficiency

We may delay or cancel the introduction of new products to the market as a result of a number of factors, some of which are beyond our control. For more information regarding these factors, see "Business – Research and Development" on page 16 and "Risk Factors – If we are unable to successfully introduce new products to keep pace with the rapid technological changes that characterize our market, our results of operations will be significantly harmed" starting on page 19.

Technology

The design of all of our systems requires a combination of sophisticated technical competencies, including design of field programmable gate arrays, or FPGAs, which are integrated circuits that can be repeatedly reprogrammed to perform different sets of functions as required. The design of all of our systems also requires high-speed digital hardware design, software engineering and optical and mechanical engineering. We have built an organization of professional staff with skills in all of these areas. The integration of these technical competencies enables us to design and manufacture performance analysis systems which are highly scalable to meet the needs of our customers.

Complex Logic Design. Our systems use FPGAs that are programmed by the host computer and therefore can be reconfigured for different applications. Our newest products have clock frequencies, which are the timing signals that synchronize all components within our system, and logic densities, which are the number of individual switching components, or gates, of more than four million gates per chip. Our customers may obtain updates and enhancements from our website, thereby allowing rapid updates of the system. Almost all of our logic chips are designed in the VHDL hardware description language, a unique programming language tailored to the development of logic chips. This language enables the easy migration of the hardware design to application specific integrated circuits as volumes warrant. We develop VHDL code in a modular fashion for reuse in logic design, which comprises a critical portion of our intellectual property. This reusable technology allows us to reduce the time-to-market for our new and enhanced products.

Software Technology. We devote substantial engineering resources to the development of software technology for use in our product lines. We have developed software to control our systems, analyze data collected by our systems, and monitor, maintain and self-test our hardware and field programmable gate array subsystems. A majority of our software technology and expertise is focused on the use of object-oriented development techniques to design software subsystems that can be reused across multiple product lines. These objects are client and server independent allowing for distributed network applications. This software architecture allows all of the software tools developed for our existing products to be utilized in all of our new products with very little modification. Another important component of our software technology is our graphical user interface design. Customer experience with our test products has enabled us to design a simple yet effective method to display complex configurations in clear and concise graphical user interfaces for intuitive use by engineers.

Customers

Since our incorporation in May 1997 through December 31, 2008, we have shipped our systems to over 2,000 customers. No customer other than Cisco Systems accounted for more than 10% of our total annual revenues in 2008, 2007 or 2006. Cisco Systems accounted for 21.0% of our total revenues in 2008, 23.9% of our total revenues in 2007 and 25.7% of our total revenues in 2006.

We do not have long-term or volume purchase contracts with our customers, and they may reduce or discontinue their purchases at any time.

Competition

The market for network performance measurement and analysis systems for use in the high-speed data communications industry is highly competitive, and we expect this competition to increase in the future. We currently compete with test equipment manufacturers such as Agilent Technologies, Spirent Communications, and Anritsu. We also compete with a number of small companies which are focused on network performance

measurement, wireless and IMS, and converged monitoring test. Additionally, some of our significant customers have developed, or may develop, in-house performance analysis products for their own use or for sale to others.

We believe that the principal competitive factors in our market include:

- Breadth of product offerings and features on a single platform,
- Timeliness of new product introductions,
- Product quality, reliability and performance,
- Price and overall cost of product ownership,
- Ease of installation, integration and use,
- Customer service and technical support, and
- Company reputation and size.

We believe that we compete favorably in the key competitive factors that impact our markets. We intend to remain competitive through ongoing research and development efforts that enhance existing systems and to develop new systems. We will also seek to expand our market presence through marketing and sales efforts. However, our market is still evolving and we may not be able to compete successfully against current or future competitors.

We expect competition to increase significantly from existing providers of network performance measurement and analysis products and from companies that may enter our existing or future markets. And, as we move into new market segments within the broader testing arena, we will be challenged by new competitors. These companies may develop similar or substitute solutions that may be more cost-effective or provide better performance or functionality than our systems. Also, as we broaden our product offerings, we may move into new markets in which we will have to compete against companies already established in those markets. Some of our existing and potential competitors have longer operating histories, significantly greater financial, product development, marketing, service, support, technical and other resources, significantly greater name recognition, and a larger installed base of customers than we do. In addition, many of our competitors have well established relationships with our current and potential customers and have extensive knowledge of our industry. It is possible that new competitors or alliances among competitors will emerge and rapidly acquire market share. Moreover, our competitors may consolidate with each other, or with other companies, giving them even greater capabilities with which to compete against us.

To be successful, we must continue to respond promptly and effectively to the challenges of changing customer requirements, technological advances and competitors' innovations. Accordingly, we cannot predict what our relative competitive position will be as the market evolves for network performance measurement and analysis systems.

Sales, Marketing and Technical Support

Sales. We use our global direct sales force to market and sell our systems. In addition, we use distributors and other resellers to complement our direct sales and marketing efforts in certain international markets. Our total revenues from international product shipments were \$63.0 million in 2008, \$60.9 million in 2007, and \$57.3 million in 2006. Our direct sales force maintains close contact with our customers and supports our distributors.

Marketing. We have a number of programs to support the sale and distribution of our systems and to inform existing and potential customers and distributors about the capabilities and benefits of our systems. Our marketing efforts also include promoting our business in the following ways:

- Sponsoring technical seminars and webinars that highlight our solutions,
- Participating in industry trade shows and technical conferences,
- Writing and distribution of various forms of collateral, including brochures, white papers, and application notes,
- Demonstrating the performance and scalability of our products at our iSimCity proof-of-concept labs,
- Communicating through our corporate website, and
- Advertising in trade journals.

Technical Support. We maintain a technically knowledgeable and responsive customer service and support staff that is critical to our development of long-term customer relationships. This staff can:

- Offer solutions for performance validation needs,
- Develop custom applications at our company headquarters,
- Deploy to customer sites on short notice, and
- Provide guidance to optimally utilize our systems.

Manufacturing

Our manufacturing operations consist primarily of materials planning and procurement, quality control, logistics, final assembly and testing, and distribution. We outsource the manufacture, assembly and testing of printed circuit board assemblies, certain interface cards and certain chassis to third party contract manufacturers and assembly companies. This manufacturing process enables us to operate without substantial space and personnel dedicated to manufacturing operations. As a result, we can conserve a significant portion of the working capital and capital expenditures that may be required for other operating needs.

We are dependent upon sole or limited source suppliers for key components and parts used in our systems, including field programmable gate arrays, chips, oscillators and optical modules. We and our contract manufacturers purchase components through purchase orders, and we have no guaranteed or long-term supply arrangements with our respective suppliers. In addition, the availability of many components is dependent in part on our ability and the ability of our contract manufacturers and assembly companies to provide suppliers with accurate forecasts of future requirements. Any extended interruption in the supply of any of the key components currently obtained from a sole or limited source or delay in transitioning to a replacement supplier's product or replacement component into our systems could disrupt our operations and significantly harm our business in any given period.

Lead times for materials and components ordered by us and by our contract manufacturers vary and depend on factors such as the specific supplier, purchase terms and demand for a component at a given time. We and our contract manufacturers acquire materials, complete standard subassemblies and assemble fully-configured systems based on sales forecasts and historical purchasing patterns. If orders do not match forecasts or

substantially deviate from historical patterns, we and our contract manufacturers and assembly companies may have excess or inadequate inventory of materials and components.

In January 2009, we entered into an agreement with Plexus Services Corp ("Plexus"), a major electronic manufacturing services company, to improve our manufacturing process and supply chain management. The term of the agreement is for five years and under the agreement, Plexus will manufacture and manage our supply chain for many of our chassis and interface cards. A significant portion of our manufactured products should be fully transitioned to Plexus by the end of 2009.

Research and Development

We believe that research and development is critical to our business. Our development efforts include anticipating and addressing the performance analysis needs of network equipment manufacturers, network operators and service providers, communications chip manufacturers and network users, large enterprises and government customers, and focusing on emerging high growth network technologies.

Our future success depends on our ability to continue to enhance our existing products and to develop new products that address the test and measurement needs of our customers. We closely monitor changing customer needs by communicating and working directly with our customers and distributors. We also receive input from our active participation in industry groups responsible for establishing technical standards.

Development schedules for technology products are inherently difficult to predict, and there can be no assurance that we will introduce any proposed new products in a timely fashion. Also, we cannot be certain that our product development efforts will result in commercially successful products or that our products will not contain software errors or other performance problems or be rendered obsolete by changing technology or new product announcements by other companies.

We plan to continue to make significant investments in research and development, including investments in our overseas development facilities in Bucharest, Romania and Kolkata, India. Our research and development expenses were \$49.2 million in 2008, \$47.4 million in 2007, and \$43.5 million in 2006. These costs included stock-based compensation expense of \$4.2 million in 2008, \$5.2 million in 2007 and \$6.5 million in 2006.

Intellectual Property and Proprietary Rights

Our success and ability to compete are dependent in part upon our ability to protect and maintain our proprietary rights to our intellectual property. We currently rely on a combination of patent, trademark, trade secret and copyright laws and restrictions on disclosure and use to establish and protect our intellectual property. We have patent applications and existing patents in the United States and in other jurisdictions. We cannot be certain that these applications will result in the issuance of any patents, or that any such patents, if they are issued, or our existing patents, will be upheld. We also cannot be certain that such patents, if issued, or our existing patents, will be effective in protecting our proprietary technology. We have registered the Ixia name, the Ixia logo and certain other trademarks in the United States, the European Union and other jurisdictions, and have filed for registration of additional trademarks.

We generally enter into confidentiality agreements with our officers, employees and consultants. We also generally limit access to and distribution of our source code and further limit the disclosure and use of other proprietary information. However, these measures provide only limited protection of our intellectual property rights. In addition, we may not have signed agreements containing adequate protective provisions in every case, and the contractual provisions that are in place may not provide us with adequate protection in all circumstances.

Despite our efforts to protect our proprietary rights, unauthorized parties may attempt to copy or otherwise obtain or use technology that we regard as proprietary. We cannot be certain that the steps taken by us to protect our proprietary rights will be adequate to prevent misappropriation of our technology or that our competitors will not independently develop technologies that are similar or superior to our technology. In addition, the laws of some foreign countries do not protect our proprietary rights to the same extent as do the laws of the United States. Any infringement of our proprietary rights could result in significant litigation costs, and any failure to adequately protect our proprietary rights could result in our competitors' offering similar products, potentially resulting in loss of competitive advantage, loss of market share and decreased revenues. Litigation may be necessary to enforce our intellectual property rights or to determine the validity and scope of the proprietary rights of others. Litigation of this type could result in substantial costs and diversion of resources and could significantly harm our business.

The telecommunication and data communications industries are characterized by the existence of a large number of patents and frequent litigation based on allegations of patent infringement. From time to time, third parties may assert patent, copyright, trademark and other intellectual property rights to technologies or proprietary rights that are important to our business. We have not conducted a search to determine whether the technology we have in our products infringes or misappropriates intellectual property held by third parties. Any claims asserting that our systems infringe or may infringe proprietary rights of third parties, if determined adversely to us, could significantly harm our business. See Part I, Item 3 of this Form 10-K for additional information.

Employees

As of December 31, 2008, we had approximately 769 full-time employees. We also from time to time hire temporary and part-time employees and independent contractors. Our future performance depends, to a significant degree, on our continued ability to attract and retain highly skilled and qualified technical, sales and marketing, and senior management personnel. Our employees are not represented by any labor unions. We consider our relations with our employees to be good.

Available Information

Our website address is www.ixiacom.com. We make available free of charge through a link provided at such website our Forms 10-K, 10-Q and 8-K as well as any amendments thereto. Such reports are available as soon as reasonably practicable after they are filed with the Securities and Exchange Commission.

Item 1A. Risk Factors

The statements that are not historical facts contained in this Form 10-K are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These statements reflect the current belief, expectations or intent of our management and are subject to and involve certain risks and uncertainties. Many of these risks and uncertainties are outside of our control and are difficult for us to forecast or mitigate. In addition to the risks described elsewhere in this Form 10-K and in certain of our other Securities and Exchange Act Commission filings, the following important factors, among others, could cause our actual results to differ materially from those expressed or implied by us in any forward-looking statements contained herein or made elsewhere by or on behalf of us.

Our business may be adversely affected by unfavorable general economic and market conditions

Our business is subject to the effects of general economic conditions in the United States and globally and, in particular, market conditions in the communications and networking industries. In the past, our operating results were adversely affected as a result of unfavorable economic conditions and reduced capital spending in the United States, Europe and Asia. The current global financial crisis has included, among other things, significant reductions in available capital and liquidity from banks and other providers of credit, substantial reductions and/or fluctuations in equity and currency values worldwide, and concerns that the worldwide economy may enter into a prolonged recessionary period. Unfavorable changes in economic and market conditions such as these may result in lower capital spending by our customers on test and measurement solutions, and therefore demand for our products may decline, adversely impacting our revenue. Challenging economic and market conditions may also impair the ability of our customers to pay for the products and services they have purchased. As a result, our reserves for doubtful accounts and write-offs of accounts receivable may increase.

In addition, prolonged unfavorable economic conditions and market turbulence may also negatively impact our contract manufacturers' and suppliers' capability to timely supply and manufacture our products, thereby impairing our ability to meet our contractual obligations to our customers. These potential effects, as well as any other currently unforeseeable effects, of the current global financial crisis are difficult to forecast and mitigate. As a result, we may experience material adverse impacts on our business, operating results and financial condition.

Because we depend on a limited number of customers for a majority of our revenues, any cancellation, reduction or delay in purchases by these customers could significantly harm our revenues and results of operations

Historically, a small number of customers has accounted for a significant portion of our total revenues. Specifically, sales to our largest customer, Cisco Systems, accounted for 21.0% of our total revenues in 2008, 23.9% of our total revenues in 2007 and 25.7% of our total revenues in 2006. We expect that significant customer concentration will continue for the foreseeable future and that our operating results will continue to depend to a significant extent upon revenues from a small number of customers.

Our dependence on large orders from a limited number of customers makes our relationships with these customers critical to the success of our business. We cannot be certain that we will be able to retain our largest customers, that we will be able to increase our sales to our other existing customers or that we will be able to attract additional customers. From time to time, we have experienced delays and reductions in orders from some of our major customers. In addition, our customers have sought price reductions or other concessions from us and will likely continue to do so. We typically do not have long-term or volume purchase contracts with our customers, and our customers can stop purchasing our products at any time without penalty and are free to purchase products from our competitors. The loss of one or more of our largest customers, any reduction or delay in sales to these customers, our inability to successfully develop and maintain relationships with existing and new

customers, or requirements that we make price reductions or other concessions could significantly harm our revenues and results of operations.

Competition in our market could significantly harm our results of operations

The market for our products is highly competitive. We face competition primarily from test equipment manufacturers such as Agilent Technologies, Spirent Communications and Anritsu. We also compete with a number of small companies which are focused on network performance analysis and measurement, wireless and IMS, and converged monitoring test. Additionally, some of our significant customers have developed, or may develop, in-house performance analysis products for their own use or for sale to others. For example, Cisco Systems, our largest customer, has used internally developed test products for a number of years. Although Cisco Systems has in the past accounted for a significant portion of our revenues, we cannot be certain that it will continue to do so.

As we broaden our product offerings, we may move into new markets and face additional competition. Moreover, our competitors may have more experience operating in these new markets and be better established with the customers in these new markets.

Some of our competitors and potential competitors have greater brand name recognition and greater financial, technical, marketing, sales and distribution capabilities than we do. Moreover, our competitors may consolidate with each other, or with other companies, giving them even greater capabilities with which to compete against us.

Increased competition in the IP-based network performance analysis and measurement market could result in increased pressure on us to reduce prices and could result in a reduction in our revenues and/or a decrease in our margins, each of which could significantly harm our results of operations. In addition, increased competition could prevent us from increasing our market share, or cause us to lose our existing market share, either of which would harm our revenues and profitability.

We cannot predict whether our current or future competitors will develop or market technologies and products that offer higher performance or more features, or that are more cost-effective than our current or future products. To remain competitive, we must continue to develop cost-effective products and product enhancements which offer higher performance and more functionality. Our failure to do so will harm our revenues and results of operations.

If we are unable to successfully introduce new products to keep pace with the rapid technological changes that characterize our market, our results of operations will be significantly harmed

The market for our products is characterized by:

- rapid technological change such as the recent advancements of IP-based networks and wireless technologies;
- frequent new product introductions such as higher speed and more complex routers;
- evolving industry standards such as new Internet protocols;
- changing customer needs such as the increase in advanced IP services agreed to between network service providers and their customers; and
- short product life cycles as a result of rapid changes in our customers' products.

Our performance will depend on our successful development, introduction and market acceptance of new and enhanced performance analysis products that address new technologies and changes in customer requirements. If we experience any delay in the development or introduction of new products or enhancements to our existing products, our operating results may suffer. For instance, undetected software or hardware errors, which frequently occur when new products are first introduced, could result in the delay or loss of market acceptance of our products and the loss of credibility with our customers. In addition, if we are not able to develop, or license or acquire from third parties, the underlying core technologies necessary to create new products and enhancements, our existing products are likely to become technologically obsolete over time and our operating results will suffer. If the rate of development of new technologies and transmission protocols by our customers is delayed, the growth of the market for our products and therefore our sales and operating results may be harmed.

Our ability to successfully introduce new products in a timely fashion will depend on multiple factors, including our ability to:

- anticipate technological changes and industry trends;
- properly identify customer needs;
- innovate and develop and license or acquire new technologies and applications;
- hire and retain necessary technical personnel;
- successfully commercialize new technologies in a timely manner;
- timely obtain key components for the manufacture of new products;
- manufacture and deliver our products in sufficient volumes and on time;
- price our products competitively; and
- differentiate our offerings from our competitors' offerings.

The development of new, technologically advanced products is a complex and uncertain process requiring high levels of innovation and highly skilled engineering and development personnel, as well as the accurate anticipation of technology and market trends. We cannot be certain that we will be able to identify, develop, manufacture, market or support new or enhanced products successfully, if at all, or on a timely or cost-effective basis. Further, we cannot be certain that our new products will gain market acceptance or that we will be able to respond effectively to technological changes, emerging industry standards or product announcements by our competitors. If we fail to respond to technological change and the needs of our markets, we will lose revenues and our competitive position will suffer.

We depend on sales of a narrow range of products and if customers do not purchase our products, our revenues and results of operations will be significantly harmed

Our business and products are concentrated in the market for systems that analyze and measure the performance of IP-based network equipment and systems. This market is an evolving market and there is uncertainty regarding its size and scope. Our performance will depend on increased sales of our existing systems and the successful development, introduction and market acceptance of new and enhanced products. We cannot be certain that we will be successful in increasing these sales or in developing and introducing new products. Our failure to do so would significantly harm our revenues and results of operations.

Our large customers have substantial negotiating leverage, which may require that we agree to terms and conditions that may have an adverse effect on our business

Large network equipment manufacturers have substantial purchasing power and leverage in negotiating contractual arrangements with us. These customers may require us to develop additional features, reduce our prices or grant other concessions. As we seek to sell more products to these large network equipment manufacturers, we may be required to agree to such terms and conditions. These terms may affect the amounts and timing of revenue recognition and our margins, which may adversely affect our profitability and financial condition in the affected periods.

If we do not diversify our customer base, we may not be able to grow our business or increase our profitability

To date, a significant majority of our total revenues have been generated from sales to network equipment manufacturers. Our growth depends, in part, on our ability to diversify our customer base by increasing sales to enterprises, government departments and agencies, network operators and service providers, and communications chip manufacturers. To effectively compete for the business of these customers, we must develop new products and enhancements to existing products and expand our sales, marketing and customer service capabilities, which will result in increases in operating costs. If we cannot offset these increases in costs with an increase in our revenues, our operating results may be adversely affected. Some of our existing and potential competitors have existing relationships with many enterprises, government departments and agencies, network operators and service providers, and communications chip manufacturers. We cannot be certain that we will be successful in increasing our sales presence in these markets. Any failure by us to increase sales in these markets would adversely affect our growth.

Our quarterly and annual operating results may fluctuate significantly as a result of new product introductions and other factors, which fluctuations could cause our stock price to decline significantly

Our quarterly and annual operating results have fluctuated and may fluctuate significantly due to a variety of factors, most of which are outside of our control. Some of the factors that could cause our quarterly and annual operating results to fluctuate include the other risks discussed in this "Risk Factors" section.

We may experience a shortfall or delay in generating or recognizing revenues for a number of reasons. Orders on hand at the beginning of a quarter and orders generated in a quarter do not always result in the shipment of products and the recognition of revenues for that quarter. Failure to ship products by the end of the quarter in which they are ordered or our inability to recognize revenue for products shipped in a quarter may adversely affect our operating results for that quarter. Our agreements with customers typically provide that the customer may delay scheduled delivery dates and cancel orders prior to shipment without penalty. Because we incur operating expenses based on anticipated revenues and a high percentage of our expenses are fixed in the short term, any delay in generating or recognizing forecasted revenues could significantly harm our results of operations.

Our operating results may also vary as a result of the timing of our release of new products. The introduction of a new product in any quarter may cause an increase in revenues in that quarter that may not be sustainable in subsequent quarters.

In addition, actual events, circumstances, outcomes, and amounts differing from judgments, assumptions, and estimates used in determining the values of certain assets (including the amounts of related valuation allowances), liabilities, and other items reflected in our consolidated financial statements could significantly harm our results of operations.

The factors described above are difficult to forecast and mitigate. As a consequence, operating results for a particular period are difficult to predict, and therefore, prior results are not necessarily indicative of results to be expected in future periods. Any of the foregoing factors, or any other factors discussed elsewhere herein, could have a material adverse effect on our business, results of operations, and financial condition and could adversely affect our stock price.

The loss of any of our key personnel could significantly harm our results of operations and competitive position

Our success depends to a significant degree upon the continuing contributions of our key management, technical, marketing and sales employees. There can be no assurance that we will be successful in retaining our key employees or that we can attract or retain additional skilled personnel as required. Competition for highly skilled employees in our industry is intense, and the cost to recruit and train new technical personnel is significant. Moreover, companies in our industry whose employees accept positions with competitors frequently claim that those competitors have engaged in unfair hiring practices. We may be subject to such claims as we seek to retain or hire qualified personnel, some of whom may currently be working for our competitors.

Some of these claims may result in material litigation. We could incur substantial costs in defending ourselves against these claims, regardless of their merits. Such claims could also discourage potential employees who currently work for our competitors from joining us. In addition, volatility or lack of positive performance in our stock price may also adversely affect our ability to attract and retain highly skilled employees who may look to stock-based awards as a key component of their compensation. Many of the stock options held by our employees have an exercise price that is higher (in some cases significantly higher) than the current trading price of our common stock, and these "underwater" options do not serve their purpose as incentives for our employees to remain with Ixia. The loss of the services of any of our key employees, the inability to attract or retain qualified personnel in the future or delays in hiring required personnel could hinder the development and introduction of new and enhanced products and harm our ability to sell our products. As a result, failure to retain or attract key personnel could significantly harm our results of operations and competitive position.

Continued growth will strain our operations and require us to incur costs to maintain and upgrade our management and operational resources

We have experienced growth in our operations, including number of employees, products, facility locations and customers. Unless we manage our growth effectively, we may have difficulty in operating our business. As a result, we may inaccurately forecast sales and materials requirements, fail to integrate new personnel or fail to maintain adequate internal controls, which may result in fluctuations in our operating results and cause the price of our stock to decline. We may continue to expand our operations to enhance our product development efforts and broaden our sales reach, which may place a significant strain on our management and operational resources. In order to manage our growth effectively, we must implement and improve our operational systems, procedures and controls on a timely basis. If we cannot manage growth effectively, our profitability could be significantly harmed.

If we are unable to expand our sales and distribution channels or are unable to successfully manage our expanded sales organization, our revenues and results of operations will be harmed

Historically, we have relied primarily on a direct sales organization, supported by distributors, to sell our products. Our distribution strategy focuses primarily on developing and expanding our direct sales organization and our network of distributors and other resellers. We may not be able to successfully expand our sales and distribution channels, and the cost of any expansion may exceed the revenues that we generate as a result of the expansion. To the extent that we are successful in expanding our sales and distribution channels, we cannot be

certain that we will be able to compete successfully against the significantly larger and better-funded sales and marketing operations of many of our current or potential competitors. In some cases, we have granted exclusive rights to our distributors to market our products in their specified territories. Our distributors may not market our products effectively or devote the resources necessary to provide us with effective sales, marketing and technical support. Our inability to effectively manage the expansion of our sales and support staff, or to maintain existing or establish new relationships with successful distributors, would harm our revenues and results of operations.

If we are unable to expand our international sales and distribution channels or manage them effectively, our results of operations would be harmed

Historically, a significant majority of our sales have been made to customers in the United States. Our sales based on product shipments to the United States accounted for 64.2% of our total revenues in 2008, 65.0% of our total revenues in 2007 and 68.2% of our total revenues in 2006. Historically, distributors have generated a significant portion of our international sales. In the past, we have had distributors who entered bankruptcy and were therefore terminated as distributors of our products. Moreover, if we terminate a distribution relationship for performance-related or other reasons, we may be subject to wrongful termination claims which may result in material litigation. We could incur substantial costs in defending ourselves against these claims, regardless of their merits, which could adversely impact our profitability.

Losses of one or more of our international distributors or their failure to sell our products would limit our ability to sustain and grow our revenues in international markets. We intend to expand into additional international markets in the EMEA and Asia Pacific regions by adding distributors and international sales and support personnel. Our failure in these efforts could significantly harm our results of operations and decrease the value of our stock.

Changes in industry and market conditions could lead to charges related to discontinuances of certain of our products and asset impairments

In response to changes in industry and market conditions, we may be required to strategically realign our resources by restructuring our operations and/or our product offerings. Any decision to limit investment in or dispose of a product offering may result in the recording of special charges to earnings, such as inventory, fixed asset and technology-related write-offs and charges relating to consolidation of excess facilities, which could adversely impact our business, results of operations and financial position.

Our reported financial results could suffer if there is an impairment of goodwill

We are required to test annually, and review when circumstances warrant, our goodwill associated with past acquisitions and any future acquisitions, to determine if impairment has occurred. If such assets are deemed impaired, an impairment loss equal to the amount by which the carrying amount exceeds the implied fair value of the goodwill would be recognized. This would result in an incremental charge for that quarter which would adversely impact our earnings for the period in which the impairment was determined to have occurred. For example, such impairment could occur if the market value of our common stock falls below the carrying value of our net assets for a sustained period.

Recently, the turmoil in credit markets and the broader economy has contributed to extreme price and volume fluctuations in global stock markets that have reduced the market price of many technology company stocks, including ours. Further declines in our stock price or the failure of our stock price to recover from previous declines, as well as any marked decline in our level of revenues or margins, increase the risk that goodwill may become impaired in future periods. We cannot accurately predict the amount and timing of any impairment of assets.

Our investment portfolio may become impaired by further deterioration of the financial markets

We follow an established investment policy and set of objectives designed to preserve principal and liquidity, to generate a market return given the policy's guidelines and to avoid certain investment concentrations. The policy also sets forth credit quality standards and limits our exposure to any one non-government issuer. Our cash equivalent and short- and long-term investment portfolio as of December 31, 2008 consisted of U.S. Treasury-based money market funds, corporate debt securities and auction rate securities. Due to the adverse global economic conditions that continue to impact the financial markets and the specific impacts on our underlying investments, we have written down the values of our illiquid auction rate securities ("ARS") and our investment in bonds issued by Lehman Brothers Holdings, Inc. ("LBHI"), which filed for bankruptcy in September 2008. For the year ended December 31, 2008, we recorded other-than-temporary impairment charges to earnings of \$15.8 million (pre-tax) on our ARS and \$4.4 million (pre-tax) on our LBHI bonds. As of December 31, 2008, the estimated fair values of our ARS and LBHI bonds approximated \$3.2 million and \$446,000, respectively.

Although the remainder of our investment portfolio's carrying value approximated fair value as of December 31, 2008, we cannot predict future market conditions or market liquidity, or the future value of our investments. As a result, we can provide no assurance that our investment portfolio will not be further impaired in the future and that any such impairment will not materially and adversely impact our financial condition, results of operations and cash flows.

Acquisitions undertaken and any that we may undertake could be difficult to integrate, disrupt our business, dilute shareholder value and significantly harm our operating results

Acquisitions are inherently risky and no assurance can be given that our previous or future acquisitions will be successful or will not materially and adversely affect our business, operating results or financial condition. We expect to continue to review opportunities to acquire other businesses or technologies that would complement our current products, expand the breadth of our markets, enhance our technical capabilities or otherwise offer growth opportunities. While we are not currently a party to any acquisition agreements, we may acquire additional businesses, products or technologies in the future. If we make any further acquisitions, we could issue stock that would dilute existing shareholders' percentage ownership, and we could incur substantial debt or assume contingent liabilities. We have limited experience in acquiring other businesses and technologies. We may not fully realize the expected benefits of an acquisition. Acquisitions involve numerous risks, including the following:

- problems or delays in assimilating the acquired operations, technologies or products;
- unanticipated costs associated with the acquisition;
- diversion of management's attention from our core business;
- adverse effects on existing business relationships with suppliers, contract manufacturers, customers and industry experts;
- we may incur significant impairment, exit and/or restructuring charges if the products or technologies acquired in an acquisition do not meet our sales expectations or are unsuccessful;
- risks associated with entering markets in which we have no or limited prior experience; and
- potential loss of the acquired organization's or our own key employees.

We cannot be certain that we would be successful in overcoming problems in connection with our past or future acquisitions, and our inability to do so could significantly harm our assets acquired in such acquisitions, revenues and results of operations.

International activity may increase our cost of doing business or disrupt our business

We plan to continue to maintain or expand our international operations and sales activities. Operating internationally involves inherent risks that we may not be able to control, including:

- difficulties in recruiting, training and retaining international personnel;
- increased complexity and costs of managing international operations;
- growing demand for and cost of technical personnel;
- increased exposure to foreign currency exchange rate fluctuations;
- commercial laws and business practices that favor local competition;
- changing governmental laws and regulations, including differing labor and employment laws and longer sales cycles;
- supporting multiple languages;
- reduced or limited protections of intellectual property rights;
- more complicated logistical and distribution arrangements;
- political and economic instability; and
- difficulties in collecting receivables.

The above risks associated with our international operations and sales activities can restrict or adversely affect our ability to sell in international markets, disrupt our business and subject us to additional costs of doing business.

Some key components in our products come from sole or limited sources of supply, which exposes us to potential supply shortages that could disrupt the manufacture and sale of our products

We and our contract manufacturers currently purchase a number of key components used to manufacture our products from sole or limited sources of supply for which alternative sources may not be available. From time to time, we have experienced shortages of key components, including chips, oscillators and optical modules. We and our contract manufacturers have no guaranteed or long-term supply arrangements for these or other components, including field programmable gate arrays, or FPGAs, which are integrated circuits that can be repeatedly reprogrammed to perform different sets of functions as required. Financial or other difficulties faced by our suppliers or significant changes in market demand for necessary components could limit the availability to us and our contract manufacturers of these components. Any interruption or delay in the supply of any of these components could significantly harm our ability to meet scheduled product deliveries to our customers and cause us to lose sales.

In addition, the purchase of these components on a sole or limited source basis subjects us to risks of price increases and potential quality assurance problems. Consolidation involving suppliers could further reduce the number of alternatives available to us and affect the cost of components. An increase in the cost of components could make our products less competitive and result in lower gross margins.

There are limited substitute supplies available for many of these components, including field programmable gate arrays. All of these components are critical to the production of our products, and competition exists with other manufacturers for these key components. In the event that we can no longer obtain materials from a sole source supplier, we might not be able to qualify or identify alternative suppliers in a timely fashion, or at all.

If we fail to accurately forecast our manufacturing requirements, we could incur additional costs and experience manufacturing delays

We provide our contract manufacturers with rolling forecasts based on anticipated product orders to determine our manufacturing requirements. Some of the components used in our products have significant lead times or lead times which may unexpectedly increase depending on factors such as the specific supplier, contract terms and the demand for components at a given time. Because of these long lead times, we are often required to forecast and order products before we know what our specific manufacturing requirements will be. If we overestimate our product orders, our contract manufacturers may have excess inventory of completed products which we would be obligated to purchase. This will lead to increased costs and the risk of obsolescence. If we underestimate our product orders, our contract manufacturers may have inadequate inventory, which could result in delays in shipments, the loss or deferral of revenues and higher costs of sales. Costs are also added to our products when we are required to expedite delivery of our products to customers or of components with long lead times to our contract manufacturers. We cannot be certain that we will be able to accurately forecast our product orders and may in the future carry excess or obsolete inventory, be unable to fulfill customer demand, or both, thereby harming our revenues, results of operations and customer relationships.

Failure by our contract manufacturers to provide us with adequate supplies of high quality products could harm our revenues, results of operations, competitive position and reputation

We currently rely on a limited number of contract manufacturers to manufacture and assemble our products. We may experience delays in receiving product shipments from contract manufacturers or other problems, such as inferior quality and insufficient quantity of product. We cannot be certain that we will be able to effectively manage our contract manufacturers or that these manufacturers will meet our future requirements for timely delivery of products of sufficient quality and quantity. We intend to introduce new products and product enhancements, which will require that we rapidly achieve adequate production volumes by effectively coordinating with our suppliers and contract manufacturers. The inability of our contract manufacturers to provide us with adequate supplies of high-quality products or the loss of any of our contract manufacturers would cause a delay in our ability to fulfill customer orders while we obtain a replacement manufacturer and would harm our revenues, results of operations, competitive position and reputation.

We may not be able to expand our contract manufacturing capacity or our internal testing or quality assurance functions as required to keep up with demand for our products. Any such failure would in turn hinder our growth. If we do not expand these capacities and functions effectively or in a timely manner, we may experience disruptions in product flow which could limit our revenues, adversely affect our competitive position and reputation and result in additional cost, cancellation of orders or both.

To the extent that our customers consolidate, they may reduce purchases of our products and demand more favorable terms and conditions from us, which would harm our revenues and profitability

Consolidation of our customers could reduce the number of customers to whom our products could be sold. These merged customers could obtain products from a source other than us or demand more favorable terms and conditions from us, which would harm our revenues and profitability. In addition, our significant customers may merge with or acquire our competitors and discontinue their relationships with us.

Our products may contain defects which may cause us to incur significant costs, divert our attention from product development efforts and result in a loss of customers

Our existing products and any new or enhanced products we introduce may contain undetected software or hardware defects when they are first introduced or as new versions are released. These problems may cause us to incur significant damages or warranty and repair costs, divert the attention of our engineering personnel from our product development efforts and cause significant customer relation problems or loss of customers and reputation, all of which would harm our results of operations. A successful claim against us for an amount exceeding the limit on our product liability insurance policy would force us to use our own resources, to the extent available, to pay the claim, which could result in an increase in our expenses and a reduction of our working capital available for other uses, thereby harming our profitability and capital resources.

Our failure to protect our intellectual property may significantly harm our results of operations and reputation

Our success and ability to compete is dependent in part on our ability to protect and maintain our proprietary rights to our intellectual property. We currently rely on a combination of patent, trade secret, trademark and copyright laws to establish and protect our intellectual property. To date, we have relied primarily on trade secret laws to protect our proprietary processes and know-how. We have patent applications and existing patents in the United States and other jurisdictions. We cannot be certain that any of these applications will be approved or that any such patents, if issued, or our existing patents, will be upheld. We also cannot be certain that our existing patents and any such additional patents, if issued, will be effective in protecting our proprietary technology.

We generally enter into assignment of rights and confidentiality agreements with our officers, employees and consultants. We also generally limit access to and distribution of our source code and further limit the disclosure and use of our other proprietary information. However, these measures provide only limited protection of our intellectual property rights. In addition, we may not have signed agreements containing adequate protective provisions in every case, and the contractual provisions that are in place may not provide us with adequate protection in all circumstances. Any infringement of our proprietary rights could result in significant litigation costs, and any failure to adequately protect our proprietary rights could result in our competitors' offering similar products, potentially resulting in loss of one or more competitive advantages, loss of market share and decreased revenues.

Despite our efforts to protect our proprietary rights, existing trade secret, copyright, patent and trademark laws afford us only limited protection. In addition, the laws of some foreign countries do not protect our proprietary rights to the same extent as do the laws of the United States. Accordingly, we may not be able to prevent misappropriation of our technologies or to deter others from developing similar technologies. Others may attempt to copy or reverse engineer aspects of our products or to obtain and use information that we regard as proprietary. Further, monitoring the unauthorized use of our products and our proprietary rights is difficult. Litigation may be necessary to enforce our intellectual property rights or to determine the validity and scope of the proprietary rights of others. Litigation of this type could result in substantial costs and diversion of resources and could significantly harm our results of operations and reputation.

Claims that we infringe third-party intellectual property rights could result in significant expenses or restrictions on our ability to sell our products

From time to time, other parties may assert patent, copyright, trademark and other intellectual property rights to technologies that are important to our business. We cannot provide assurance that others will not claim that we are infringing their intellectual property rights or that we do not in fact infringe those intellectual property rights. We have not conducted a search to determine whether the technology we have in our products infringes or misappropriates intellectual property held by third parties.

Any claims asserting that our products infringe or may infringe proprietary rights of third parties, if determined adversely to us, could significantly harm our results of operations. Any claims, with or without merit, could:

- be time-consuming;
- result in costly litigation;
- divert the efforts of our technical and management personnel;
- require us to modify the infringing products or to develop alternative technology, thereby causing product shipment delays and the loss or deferral of revenues;
- require us to cease selling the products containing the intellectual property at issue;
- require us to pay substantial damage awards;
- damage our reputation; or
- require us to enter into royalty or licensing agreements which, if required, may not be available on terms acceptable to us, if at all.

In the event a claim against us were successful and we could not obtain a license to the relevant technology on acceptable terms or license a substitute technology or redesign our products to avoid infringement, our revenues, results of operations and competitive position could be harmed. See Part I, Item 3 of this Form 10-K for additional information.

Changes in laws, regulations and financial accounting standards may affect our reported results of operations

Changes in accounting regulations and standards, such as increased use of fair value measures and the potential requirement that U.S. registrants prepare financial statements in accordance with International Financial Reporting Standards (IFRS), can have a significant effect on our results. New pronouncements and varying interpretations of pronouncements have occurred in the past and are likely to occur in the future as a result of recent Congressional and regulatory actions. New laws, regulations and accounting standards, as well as the questioning of, or changes to, currently accepted accounting practices in the technology industry may adversely affect our financial results, which could have an adverse effect on our stock price.

For example, in 2006, we adopted the provisions of, and began to account for stock-based compensation in accordance with, Statement of Financial Accounting Standards No. 123 (revised 2004), "Share-Based Payment," or SFAS 123R. As a result, our operating results for periods subsequent to December 31, 2005 contain charges for stock-based compensation expense related to employee share-based awards issued under our equity incentive plans. Prior to the adoption of SFAS 123R, we accounted for our stock-based compensation

using the intrinsic value method prescribed by APB No. 25 "Accounting for Stock Issued to Employees" and related interpretations and provided the pro forma disclosures required by SFAS 123. Applying the intrinsic value method generally resulted in no compensation expense being recognized related to our share-based awards in periods prior to our adoption of SFAS 123R. The adoption of SFAS 123R has had a material impact on our results of operations and will continue to have a material impact in future periods as a result of our continuing recognition of expense for stock-based compensation. We cannot predict the effect that this impact on our earnings will have on the price of our Common Stock, but such impact could be adverse.

Our business is subject to changing regulation of corporate governance and public disclosure that has resulted in increased costs and may continue to result in additional costs in the future

We are subject to rules and regulations of federal and state regulatory authorities, including The Nasdaq Stock Market LLC ("Nasdaq") and financial market entities charged with the protection of investors and the oversight of companies whose securities are publicly traded. During the past few years, these entities, including the Public Company Accounting Oversight Board, the SEC and Nasdaq, have issued new requirements and regulations and continue to develop additional regulations and requirements partly in response to laws enacted by Congress, most notably the Sarbanes-Oxley Act of 2002 ("SOX"). Our efforts to comply with these requirements and regulations have resulted in, and are likely to continue to result in, increased general and administrative expenses and a diversion of substantial management time and attention from revenue-generating activities to compliance activities.

In particular, our efforts to comply with Section 404 of SOX and the related regulations regarding our required assessment of our internal control over financial reporting and our external auditors' audit of the effectiveness of our internal control over financial reporting, has required, and continues to require, the commitment of significant financial and managerial resources. Moreover, because these laws, regulations and standards are subject to varying interpretations, their application in practice may evolve over time as new guidance becomes available. This evolution may result in continuing uncertainty regarding compliance matters and additional costs necessitated by ongoing revisions to our disclosure and governance practices.

If we fail to maintain our relationships with industry experts, our products may lose industry and market recognition and sales could decline

Our relationships with industry experts in the field of performance analysis and measurement of networks and network equipment are critical for maintaining our industry credibility and for developing new products and testing methodologies in a timely fashion. These experts have established standard testing methodologies that evaluate new network equipment products and technologies. We provide these experts and their testing labs with our products and engineering assistance to perform tests on these new network equipment products and technologies. These industry experts refer to our products in their publications which has given our products industry recognition. In addition, these labs offer us the opportunity to test our products on the newest network equipment and technologies, thereby assisting us in developing new products that are designed to meet evolving technological needs. We cannot be certain that we will be able to maintain our relationships with industry experts or that our competitors will not maintain similar or superior relationships with industry experts. If we are unable to maintain our relationships with industry experts or if competitors have superior relationships with them, our products may lose industry and market recognition which could harm our reputation and competitive position and cause our sales to decline.

Our headquarters, many of our customers and some of our contract manufacturers and suppliers are located in California where natural disasters have occurred and may occur in the future

Currently, our corporate headquarters, many of our customers and some of our contract manufacturers and suppliers are located in California. California historically has been vulnerable to natural disasters and other risks, such as earthquakes, fires and floods, which at times have disrupted the local economy and posed physical risks to our property. We and some of our customers, contract manufacturers and suppliers do not have redundant, multiple site capacity. In the event of a natural disaster, our ability to conduct business could be significantly disrupted, thereby harming our results of operations.

Man-made problems such as computer viruses or terrorism may disrupt our operations and harm our operating results

Despite our implementation of network security measures, our network may be vulnerable to computer viruses, break-ins and similar disruptions from unauthorized tampering with our computer systems. Any such event could have a material adverse effect on our business, operating results and financial condition. In addition, the effects of war or acts of terrorism could have a material adverse effect on our business, operating results and financial condition. The continued threat of terrorism and heightened security and military action in response to this threat, or any future acts of terrorism, may cause further disruption to the economy and create further uncertainties in the economy. Energy shortages, such as gas or electricity shortages, could have similar negative impacts. To the extent that such disruptions or uncertainties result in delays or cancellations of customer orders, or the manufacture or shipment of our products, our business, operating results and financial condition could be materially and adversely affected.

Provisions of our articles of incorporation and bylaws may make it difficult for a third party to acquire us, despite the possible benefits to our shareholders

Our board of directors has the authority to issue up to one million shares of preferred stock and to determine the price, rights, preferences, privileges and restrictions, including voting rights, of those shares without any further vote or action by the shareholders. The rights of the holders of our common stock are subject to, and may be adversely affected by, the rights of the holders of any preferred stock that we may issue. The issuance of preferred stock could have the effect of making it more difficult for a third party to acquire a majority of our outstanding voting stock. Furthermore, some provisions of our articles of incorporation and bylaws could delay or make more difficult a merger, tender offer or proxy contest involving us.

These provisions of our articles of incorporation and bylaws may have the effect of delaying, deferring or preventing a change in our control despite possible benefits to our shareholders, may discourage bids at a premium over the market price of our common stock and may harm the market price of our common stock and the voting and other rights of our shareholders.

Item 1B. Unresolved Staff Comments

Not applicable.

Item 2. Properties

Our corporate headquarters are located in Calabasas, California, where we currently lease approximately 84,100 square feet of space which houses our research and development, sales and marketing, finance and

administration and manufacturing operations. This lease terminates on May 31, 2013, and we have an option to extend the term of the lease for an additional five-year period. We also lease office space for our sales and support offices in Santa Clara, California, North Carolina, Virginia, Massachusetts, Florida, the United Kingdom, Japan, China, Singapore and Bangalore, India. Additionally, we have leased facilities in Bucharest, Romania and Kolkata, India used primarily for research and development activities. We believe that our current facilities will be adequate to meet our needs for the next 12 months, or that we will be able to obtain additional space when and as needed on acceptable terms.

Item 3. Legal Proceedings

Ixia v. Charles Bettinelli and IneoQuest Technologies, Inc. In October 2005, Ixia filed a complaint against its former employee, Charles Bettinelli, and his then-employer, IneoQuest Technologies, Inc. ("IneoQuest"). The case is pending in Los Angeles County Superior Court. Ixia's complaint alleges breach of contract, misappropriation of trade secrets, intentional interference with contract and prospective business advantage, unfair competition, fraud, and violation of California Penal Code Section 502 (computer data access and fraud act). IneoQuest filed a motion for summary judgment in June 2008. In October 2008, IneoQuest's motion for summary judgment was denied in its entirety, and the matter is currently set for trial in June 2009. Ixia is seeking monetary damages in excess of \$10 million in addition to equitable relief.

In a related proceeding based on the same facts, Mr. Bettinelli was criminally charged with felony violation of Penal Code Section 502; he pleaded no contest to the felony charge in September 2008, which was reduced to a misdemeanor at sentencing upon his payment of \$75,000 to Ixia as restitution.

IneoQuest Technologies, Inc. vs. Ixia. In November 2008, IneoQuest filed a complaint against Ixia in the United States District Court for the Central District of California. The complaint alleges that Ixia makes and sells products that infringe a patent owned by IneoQuest, and that Ixia misappropriated IneoQuest's trade secrets, in addition to numerous other related claims. The patent at issue allegedly relates to a system and method for analyzing the performance of multiple transportation streams of streaming media in packet-based networks. IneoQuest seeks a permanent injunction enjoining Ixia from infringing the patent at issue and from using IneoQuest's trade secrets and confidential information, unspecified general and exemplary damages, and attorneys' fees and costs.

In January 2009, Ixia filed an answer and counterclaim to IneoQuest's complaint denying IneoQuest's claims and raising several affirmative defenses. Ixia has also asserted a counterclaim against IneoQuest seeking declaratory relief that Ixia has not infringed the IneoQuest patent and that such patent is invalid. Although the Company cannot predict the outcome of this matter, Ixia believes that it has strong defenses to IneoQuest's claims and is defending the action vigorously. The parties have not yet commenced discovery in this matter.

We are not aware of any other pending legal proceedings than the matters mentioned above that, individually or in the aggregate, would have a material adverse effect on our business, results of operations or financial position. We may in the future be party to litigation arising in the ordinary course of business, including claims that we allegedly infringe upon third party trademarks or other intellectual property rights. Such claims, even if without merit, could result in the expenditure of significant financial and managerial resources.

Item 4. Submission of Matters to a Vote of Security Holders

No matters were submitted to a vote of our security holders during the fourth quarter of 2008.

PART II

Item 5. Market for Registrant's Common Equity, Related Shareholder Matters and Issuer Purchases of Equity Securities

(a) Market Price, Dividends and Related Matters

Ixia's Common Stock is traded on the Nasdaq Global Select Market under the symbol "XXIA." The following table sets forth the high and low closing sales prices of our Common Stock as reported on the Nasdaq Global Select Market for the following time periods.

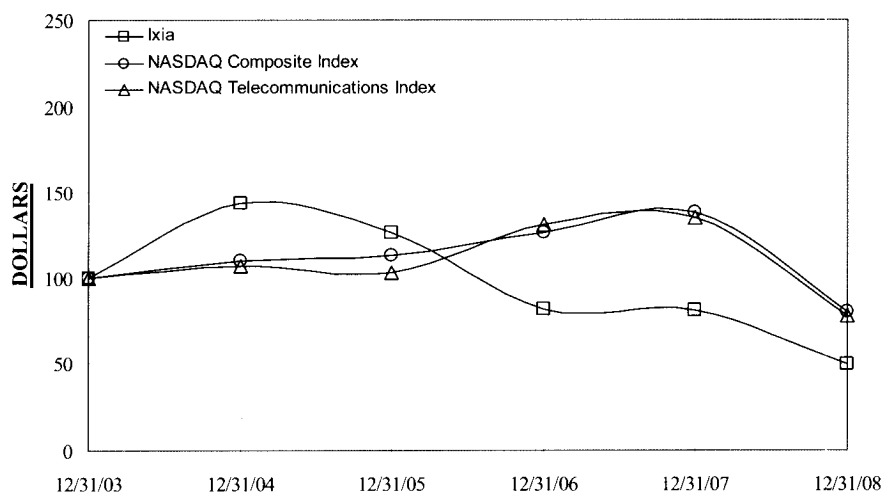
	<u>High</u>	<u>Low</u>
<u>2008</u>		
First quarter	\$ 9.52	\$ 6.82
Second quarter	8.36	6.30
Third quarter	9.09	6.75
Fourth quarter	7.40	4.73
<u>2007</u>		
First quarter	\$ 11.67	\$ 9.11
Second quarter	9.80	8.52
Third quarter	10.19	8.72
Fourth quarter	10.60	8.80

On February 19, 2009, the closing sales price reported for our Common Stock was \$5.00 per share, and as of that date there were approximately 26 shareholders of record.

We have never declared or paid cash dividends on our Common Stock and do not anticipate paying any dividends in the foreseeable future.

The following graph compares the cumulative total return on the Company's Common Stock with the cumulative total return of the Nasdaq Composite Index and the Nasdaq Telecommunications Index for the five-year period commencing January 1, 2004. Ixia is one of the companies that makes up the Nasdaq Telecommunications Index. The stock price performance shown on the graph below is not necessarily indicative of future price performance.

Comparison of Five-Year Cumulative Total Return*
among Ixia, the Nasdaq Composite Index
and the Nasdaq Telecommunications Index



	12/31/03	12/31/04	12/31/05	12/31/06	12/31/07	12/31/08
Ixia	\$ 100	\$ 143.68	\$ 126.50	\$ 82.05	\$ 81.03	\$ 49.40
Nasdaq Composite Index	100	110.08	112.88	126.51	138.13	80.47
Nasdaq Telecommunications Index	100	106.64	103.00	131.01	134.97	78.22

* Assumes (i) \$100 invested on December 31, 2003 in Ixia Common Stock, the Nasdaq Composite Index and the Nasdaq Telecommunications Index and (ii) immediate reinvestment of all dividends.

(b) Use of Proceeds

None.

(c) Issuer Repurchases of Equity Securities

In November 2008, we announced a stock buyback program (the "Program") to repurchase up to \$25 million of our common stock. This Program is in addition to the \$50 million repurchase program, which was announced in August 2007 and completed in June 2008. During the three months ended December 31, 2008, we repurchased 472,133 shares under the Program. As of December 31, 2008, approximately \$22.2 million remains available for future repurchases. The Program expires on May 29, 2009 and provides that we may earlier terminate or extend the Program at any time.

The following table summarizes our stock repurchase activity under the Program for the three months ended December 31, 2008:

<u>Period</u>	<u>Total Number of Shares Purchased</u>	<u>Average Price Paid Per Share</u>	<u>Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs</u>	<u>Approximate Dollar Value of Shares that may yet be Purchased under the Plans or Programs</u>
November 1 – November 30	—	\$ —	—	\$ 25,000,000
December 1 – December 31	<u>472,133</u>	<u>5.89</u>	<u>472,133</u>	22,220,495
	<u>472,133</u>	<u>\$ 5.89</u>	<u>472,133</u>	22,220,495

Item 6. Selected Financial Data

The following selected consolidated financial data should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and the notes to those consolidated financial statements. The consolidated statement of income data set forth below for the years ended December 31, 2008, 2007 and 2006 and the consolidated balance sheet data as of December 31, 2008 and 2007 are derived from, and are qualified in their entirety by reference to, the Company's audited consolidated financial statements included elsewhere in this Form 10-K. The consolidated statements of income data set forth below for the years ended December 31, 2005 and 2004 and the consolidated balance sheet data as of December 31, 2005 and 2004 are derived from the audited consolidated financial statements not included herein, but which were previously filed with the SEC.

	<u>2008</u> ⁽²⁾	<u>2007</u> ⁽³⁾	<u>2006</u> ⁽⁴⁾	<u>2005</u>	<u>2004</u>
Consolidated Statement of Income Data (in thousands, except per share data):					
Revenues:					
Products	\$146,802	\$148,226	\$155,388	\$130,045	\$ 97,200
Services	<u>29,065</u>	<u>25,895</u>	<u>24,744</u>	<u>20,808</u>	<u>13,464</u>
Total revenues	<u>175,867</u>	<u>174,121</u>	<u>180,132</u>	<u>150,853</u>	<u>110,664</u>
Costs and operating expenses: ⁽¹⁾					
Cost of revenues - products	32,411	32,724	29,437	24,239	20,592
Cost of revenues - amortization of purchased technology	4,778	5,196	4,705	3,891	3,044
Cost of revenues - services	4,475	3,870	2,681	2,216	1,423
Research and development	49,184	47,407	43,450	32,404	24,960
Sales and marketing	59,390	57,420	59,020	39,359	30,566
General and administrative	26,948	24,927	23,800	16,438	12,479
Amortization of intangible assets	886	1,912	1,745	1,278	1,532
Impairment of goodwill, purchased technology and/or other intangible assets	<u>-</u>	<u>3,263</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total costs and operating expenses	<u>178,072</u>	<u>176,719</u>	<u>164,838</u>	<u>119,825</u>	<u>94,596</u>
(Loss) income from operations	(2,205)	(2,598)	15,294	31,028	16,068
Interest and other income, net	6,574	11,723	9,409	5,055	2,960
Other-than-temporary impairment on investments	<u>(20,243)</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
(Loss) income before income taxes	(15,874)	9,125	24,703	36,083	19,028
Income tax expense	<u>21</u>	<u>2,119</u>	<u>11,222</u>	<u>7,593</u>	<u>4,007</u>
Net (loss) income	<u>\$ (15,895)</u>	<u>\$ 7,006</u>	<u>\$ 13,481</u>	<u>\$ 28,490</u>	<u>\$ 15,021</u>
(Loss) earnings per share:					
Basic	\$ (0.24)	\$ 0.10	\$ 0.20	\$ 0.44	\$ 0.25
Diluted	\$ (0.24)	\$ 0.10	\$ 0.20	\$ 0.41	\$ 0.23
Weighted average number of common and common equivalent shares outstanding:					
Basic	65,087	67,936	67,005	65,168	60,687
Diluted	65,087	69,386	68,792	69,227	64,745

⁽¹⁾ Stock-based compensation included

in:					
Cost of revenues - products	\$ 513	\$ 519	\$ 590	\$ -	\$ 30
Cost of revenues - services	195	197	224	-	3
Research and development	4,166	5,243	6,481	-	271
Sales and marketing	3,411	4,416	7,838	-	77
General and administrative	2,360	2,659	2,890	-	38

⁽²⁾ Our 2008 results include a pre-tax other-than-temporary impairment charge of \$20.2 million, which consists of an other-than-temporary impairment charge of \$15.8 million (pre-tax) to earnings related to our investments in auction rate securities and an other-than-temporary impairment charge of \$4.4 million (pre-tax) to earnings related to our investments in bonds issued by Lehman Brothers Holdings, Inc.

⁽³⁾ Our 2007 results include a pre-tax impairment charge of \$3.3 million, which consists of the impairment of purchased technology of \$1.5 million and the impairment of certain intangible assets of \$1.8 million related to the acquisition of Communication Machinery Corporation in July 2005 and to the acquisition of the mobile video test product line from Dilithium Networks in January 2006.

⁽⁴⁾ Due to the adoption of SFAS 123R effective January 1, 2006, our results of operations for 2008, 2007 and 2006 include \$10.6 million, \$13.0 million and \$18.0 million, respectively, of pre-tax stock-based compensation expense.

	<u>2008</u>	<u>2007</u>	<u>2006</u>	<u>2005</u>	<u>2004</u>
Consolidated Balance Sheet Data (in thousands):					
Cash and cash equivalents	\$192,791	\$188,892	\$ 64,644	\$ 51,837	\$ 16,383
Short-term investments in marketable securities	9,850	4,999	152,703	124,456	81,757
Working capital	217,882	206,059	235,168	191,176	104,515
Long-term investments in marketable securities	3,657	54,609	4,354	25,392	49,015
Total assets	328,426	369,440	349,059	322,216	241,451
Total shareholders' equity	273,196	316,500	300,789	263,480	193,491

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of many factors. The consolidated results of operations for the years ended December 31, 2008, 2007 and 2006 are not necessarily indicative of the results that may be expected for any future period. The following discussion should be read in conjunction with the consolidated financial statements and the notes thereto included in Part IV, Item 15 of this Form 10-K and in conjunction with the "Risk Factors" included in Part I, Item 1A of this Form 10-K.

Business Overview

We are a leading provider of test systems for IP-based infrastructure and services. Our hardware and software allow our customers to test and measure the performance, functionality, service quality and conformance of Internet Protocol (IP) equipment and networks, and the applications that run over them. Our solutions generate, capture, characterize and analyze high volumes of realistic network and application traffic, identifying problems, assessing performance, ensuring functionality and interoperability, and verifying conformance to industry specifications. We offer hardware platforms with interchangeable media interfaces, utilizing a common set of applications and Application Programming Interfaces (APIs) that allow our customers to create integrated, easy-to-use automated test environments. The networks that our systems analyze primarily include Ethernet networks operating at speeds of up to 10 gigabits per second that carry data traffic over optical fiber or electrical cable. We also offer applications that test and verify traditional Time-Division Multiplexing (TDM) voice-based networks, and voice over IP technology, devices and systems. These applications also assess interoperability, assist in troubleshooting, allow service optimization and perform call traffic monitoring of video telephony. Customers also use our suite of software applications to test and verify web, Internet, security and business applications.

Revenues. Our revenues are principally derived from the sale and support of our test systems. Product revenues primarily consist of sales of our hardware and software products. Our service revenues primarily consist of the provision of post contract customer support and maintenance ("PCS") related to the initial free 12-month and separately purchased extended PCS contracts, and to our implied PCS obligations. Service revenues also include separately purchased extended hardware warranty support (generally offered for 12-month periods). PCS on our software products includes unspecified software upgrades and customer technical support services. Our hardware products primarily consist of chassis and interface cards, and during the three years ended December 31, 2008, our Ethernet interface cards have represented the majority of our product shipments. In general, our Ethernet interface cards are used to test equipment and advanced IP services in the core and at the edge of the Internet and in enterprise applications, where demand has increased or remained stable during the three years ended December 31, 2008. Looking forward, while we expect that the sale of our Ethernet interface cards will continue to represent the majority of our product revenues, due to the current global business environment, it is difficult to accurately forecast the future demand and revenue trends for our products.

Sales to our largest customer accounted for \$36.9 million, or 21.0%, of our total revenues in 2008, \$41.7 million, or 23.9%, of our total revenues in 2007 and \$46.3 million, or 25.7%, of our total revenues in 2006. To date, we have sold our products primarily to network equipment manufacturers. While we expect that we will continue to have customer concentration for the foreseeable future, we continue to sell our products to a wider variety and increasing number of customers. To the extent that we develop a broader and more diverse customer base, our reliance on any one customer or customer type should diminish. From a geographic perspective, we generate a majority of our revenues from product shipments to customer locations within the United States. We generated revenues from product shipments to international locations of \$63.0 million, or 35.8% of our total revenues, in 2008, \$60.9 million, or 35.0% of our total revenues, in 2007, and \$57.3 million, or 31.8% of our total revenues, in 2006. We intend to continue increasing our sales efforts internationally with specific focus on Europe and the Asia Pacific region. Looking forward, we continue to expect the majority of our revenues to be generated within the United States for the foreseeable future.

In some instances our software products may be installed and operated independently from our hardware products. At other times, our software products are installed on and work with our hardware products to enhance the functionality of the overall test system. In addition, our chassis is generally shipped with our core operating system software installed, which is an integral part of the chassis' functionality. As our software is generally more than incidental to the sale of our test systems, we recognize revenue by applying the provisions of the American Institute of Certified Public Accountants ("AICPA") Statement of Position ("SOP") 97-2, "Software Revenue Recognition" as amended by SOP 98-9, "Software Revenue Recognition with Respect to Certain Arrangements" (collectively, "SOP 97-2").

Our test systems are generally fully functional at the time of shipment and do not require us to perform any significant production, modification, customization or installation after shipment. As such, revenue from hardware and software product sales is recognized upon shipment provided that (i) an arrangement exists, which is typically in the form of a customer purchase order; (ii) delivery has occurred (i.e., transfer of title (as applicable) and risk of loss to the customer); (iii) the sales price is fixed or determinable; and (iv) collectibility is deemed probable.

When a sale involves multiple elements, or multiple products, and we have vendor-specific objective evidence ("VSOE") of fair value for each element in the arrangement, we recognize revenue based on the relative fair value of all elements within the arrangement. We determine VSOE based on sales prices charged to customers when the same element is sold separately or based upon renewal pricing for PCS. Many of our products, such as our software and chassis products, typically include 12 months of free PCS and are not sold separately. Accordingly, we are unable to establish VSOE for these products.

In cases where VSOE only exists for the undelivered elements such as PCS, we apply the residual method to recognize revenue. Under the residual method, the total arrangement fee is allocated first to the undelivered elements, typically PCS, based on their VSOE, and the residual portion of the fee is allocated to the delivered elements, typically our hardware and software products, and is recognized as revenue assuming all other revenue recognition criteria as described above have been met.

If VSOE cannot be determined for all undelivered elements of an arrangement, we defer revenue until the earlier of (i) the delivery of all elements or (ii) the establishment of VSOE for all undelivered elements, provided that if the only undelivered element is PCS or a service, the total fee of the arrangement is recognized as revenue over the PCS or service term.

Services revenues from our initial and separately purchased extended contractual PCS arrangements (generally offered for 12-month periods) are recognized ratably over the contractual coverage period. In addition, for implied PCS obligations we defer revenues from product sales and allocate these amounts to PCS revenues to account for the circumstances in which we provide PCS after the expiration of the customer's contractual PCS period. Deferred revenues for these implied PCS obligations are recognized ratably over the implied PCS period, which is typically based on the expected economic life of our software products of four years. To the extent we determine that implied PCS is no longer being provided after the expiration of the customer's contractual PCS period, the remaining deferred revenue balance related to the implied PCS obligation is reversed and recognized as revenue in the period of cessation of the implied PCS obligation. The implied PCS obligation for our software products ceases upon (i) the license management of our software upgrades and (ii) our determination not to provide PCS after the expiration of the contractual PCS period. Our license management system locks a software license to a specific computer or Ixia hardware chassis on which our software resides. The system then manages and controls the provision of software upgrades to ensure that the upgrades are only provided to customers that are entitled to receive such upgrades during an initial or extended PCS period. For software products that are not controlled under a license management system and for certain customers where we provide implied PCS outside of the contractual PCS period, we allocate and defer revenue for these implied PCS obligations and recognize this revenue ratably over the implied PCS periods as described above. For the years ended December 31, 2008, 2007 and 2006, services revenues related to our

implied PCS obligations approximated \$4.2 million, \$3.4 million and \$8.4 million, respectively. For the years ended December 31, 2008, 2007 and 2006, \$0, \$0 and \$25.9 million, respectively, of deferred revenue relating to implied PCS was reversed and recognized as product revenues as a result of the license management of certain products and our determination not to provide PCS after the expiration of the contractual PCS period. Future reversals of implied PCS deferred revenue are not expected to be significant over the near term as a result of the future license management of additional products and our determination not to provide PCS to certain customers after the expiration of the contractual PCS period.

Revenues from our separately purchased extended hardware warranty arrangements are recognized ratably over the contractual coverage period.

We use distributors to complement our direct sales and marketing efforts in certain international markets. Due to the broad range of features and options available with our hardware and software products, distributors generally do not stock our products and typically place orders with us after receiving an order from an end customer. These distributors receive business terms of sale generally similar to those received by our other customers.

Stock-Based Compensation. Effective January 1, 2006, we adopted SFAS No. 123 (revised 2004), "Share-Based Payment," or SFAS 123R. SFAS 123R requires all share-based payments, including grants of stock options, restricted stock units and employee stock purchase rights, to be recognized in the financial statements based on the estimated fair values for accounting purposes on the grant date. Under this standard, the estimated fair value for accounting purposes of each share-based award is estimated on the date of grant using an option pricing model that meets certain requirements. We use the Black-Scholes option pricing model to estimate the fair value for accounting purposes of our share-based awards which meets the requirements of SFAS 123R. The determination of the fair value for accounting purposes of share-based awards using the Black-Scholes model is affected by our stock price and a number of assumptions, including expected volatility, expected life and risk-free interest rate. The expected life and expected volatility are estimated based on historical and other data trended into the future. The risk-free interest rate assumption is based on observed interest rates appropriate for the terms of our share-based awards. Stock-based compensation expense recognized in our consolidated financial statements is based on awards that are ultimately expected to vest. The amount of stock-based compensation expense is reduced for estimated forfeitures based on historical experience as well as future expectations. Forfeitures are required to be estimated at the time of grant and revised, if necessary, in subsequent periods if estimated and actual forfeitures differ from these initial estimates. We will evaluate the assumptions used to value share-based awards on a periodic basis. If factors change and we employ different assumptions, stock-based compensation expense may differ significantly from what we have recorded in the past. If there are any modifications or cancellations of the underlying unvested securities, we may be required to accelerate, increase or cancel any remaining unearned stock-based compensation expense. Consistent with our past practice, we attribute the value of stock-based compensation to expense based on the graded, or accelerated multiple-option, approach.

During the second quarter of 2008, our shareholders approved a Stock Option Exchange Program (the "Program"), which allowed current employees, other than executive officers and members of our Board of Directors, to exchange certain underwater options for fewer new options. On August 7, 2008, we completed the Program by canceling 3.7 million old options and granting 2.6 million new options. The canceled old options had per share exercise prices ranging from \$9.30 to \$21.50, and the new options were granted with an exercise price of \$8.58 per share, the closing price of our common stock on August 7, 2008 as reported on the Nasdaq Global Select Market. The new options have vesting schedules ranging from approximately one to four years and have contractual terms ranging from approximately three to six years. The additional gross stock-based compensation expense of \$3.1 million related to this Program will be recognized over the vesting periods of one to four years from the date of grant of the new options.

For the years ended December 31, 2008, 2007 and 2006, stock-based compensation expense was \$10.6 million, \$13.0 million and \$18.0 million, respectively. Our stock-based compensation expense declined for the year ended December 31, 2008 as compared to the comparable prior periods in 2007 and 2006 due in part to (i) an increase in estimated and actual forfeitures and (ii) the decline in the price of our common stock and weighted grant date fair values for new awards resulting in lower total stock-based compensation cost. The aggregate balance of gross unearned stock-based compensation to be expensed in the periods 2009 and through 2012 related to unvested share-based awards as of December 31, 2008 was approximately \$18.5 million. To the extent that we grant additional share-based awards, future expense may increase by the additional unearned compensation resulting from those grants. We anticipate that we will continue to grant additional share-based awards in the future as part of our long-term incentive compensation programs. The impact of future grants cannot be estimated at this time because it will depend on a number of factors, including the amount of share-based awards granted and the then current fair values of such awards for accounting purposes.

Cost of Revenues. Our cost of revenues related to the sale of our hardware and software products includes materials, payments to third party contract manufacturers, royalties, and salaries and other expenses related to our manufacturing, operations, technical support and professional service personnel. We outsource the majority of our manufacturing operations, and we conduct supply chain management, quality control, logistics, shipping and some final assembly and testing at our facility in Calabasas, California. Accordingly, a significant portion of our cost of revenues related to our products consists of payments to our contract manufacturers. Cost of revenues related to the provision of services includes salaries and other expenses associated with customer and technical support services, professional services and the warranty cost of hardware that is replaced or repaired during the warranty coverage period. Cost of revenues also includes the amortization of purchased technology in connection with our acquisitions of certain product lines and technologies.

Our cost of revenues as a percentage of total revenues is primarily affected by the following factors:

- changes in our pricing policies and those of our competitors;
- the pricing we are able to obtain from our component suppliers and contract manufacturers;
- the mix of customers and sales channels through which our products are sold;
- the mix of our products sold, such as the mix of software versus hardware product sales;
- new product introductions by us and by our competitors;
- demand for our products;
- expenses related to acquired technologies, such as royalties and amortization of intangible assets; and
- production volume.

In the near term, although we anticipate that our cost of revenues as a percentage of total revenues will remain relatively flat, we expect to continue to experience pricing pressure on larger transactions or from larger customers as a result of competition and the current global business environment.

Operating Expenses. Our operating expenses are generally recognized when incurred and consist of research and development, sales and marketing, general and administrative, and amortization of intangible assets. Due to the current global business environment, it is difficult to accurately forecast our revenue, and therefore we are unable to accurately project our expected operating expense trends as a percentage of total revenues. In dollar terms, we expect total operating expenses, excluding stock-based compensation expenses discussed above, to decline in 2009 when compared to 2008 due, in part, to lower compensation costs through the reduction or elimination of bonuses and base salary increases in 2009. We expect to continue to meet our product development objectives and our changing customer requirements in 2009 with our existing sales force, development team and operating infrastructure.

Research and development expenses consist primarily of salaries and other personnel costs related to the design, development, testing and enhancement of our products. We expense our research and development costs as they are incurred. We also capitalize and depreciate over a five-year period the costs of our products used for internal purposes.

Sales and marketing expenses consist primarily of compensation and related costs for personnel engaged in direct sales, sales support and marketing functions, as well as promotional and advertising expenditures. We also capitalize and depreciate over a two-year period the costs of our products used for sales and marketing activities, including product demonstrations for potential customers.

General and administrative expenses consist primarily of salaries and related expenses for executive, finance, legal, human resources, information technology and administrative personnel, as well as recruiting and professional fees, insurance costs and other general corporate expenses.

Amortization of intangible assets consists of the amortization of the purchase price of the various intangible assets over their useful lives. Periodically we review goodwill and other intangible assets for impairment. An impairment charge would be recorded to the extent that the carrying value exceeds the fair value in the period that the impairment circumstances occurred. See Note 5 to the Consolidated Financial Statements included in this Form 10-K.

Interest and Other Income, Net. Interest and other income, net represents interest on cash and a variety of securities, including money market funds, commercial paper, auction rate securities, and government, federal agency and corporate debt securities, and certain foreign currency gains and losses.

Income Tax. Income tax is determined based on the amount of earnings and enacted federal, state and foreign tax rates, adjusted for allowable credits and deductions and for the effects of equity compensation plans.

Critical Accounting Policies and Estimates

Management's discussion and analysis of financial condition and results of operations is based upon our consolidated financial statements which have been prepared in accordance with accounting principles generally accepted in the United States of America. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. On an ongoing basis, we evaluate our estimates, including those related to revenue recognition, allowance for doubtful accounts, write-downs for obsolete inventory, income taxes, acquisition purchase price allocation, impairments of long-lived assets and marketable securities, stock-based compensation, and contingencies and litigation. We base our estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates.

We apply the following critical accounting policies in the preparation of our consolidated financial statements:

- *Revenue Recognition Policy.* We recognize revenue as discussed in “Revenues” in the “Business Overview” section of Item 7.
- *Allowance for Doubtful Accounts.* Trade accounts receivable are recorded at the invoiced amount and do not bear interest. The allowance for doubtful accounts is based on our best estimate of the amount of probable credit losses in existing accounts receivable. The allowance for doubtful accounts is determined based on historical write-off experience, current customer information and other relevant data. We review the allowance for doubtful accounts monthly. Past due balances of 60 days and over are reviewed individually for collectibility. Account balances are charged off against the allowance when we believe it is probable the receivable will not be recovered. We do not have any off-balance-sheet credit exposure related to our customers.
- *Write-Down of Obsolete Inventory.* We write-down inventory for estimated obsolescence, excessive quantities or unmarketable inventory equal to the difference between the cost of inventory and the estimated market value based upon assumptions about future demand and market conditions. If actual future demand is less favorable than our initial estimate, additional inventory write-downs may be required.
- *Income Taxes.* We operate in numerous states and countries through our various subsidiaries, and must allocate our income, expenses, and earnings under the various laws and regulations of each of these taxing jurisdictions. Accordingly, our provision for income taxes represents our total estimate of the liability that we have incurred in doing business each year in all of our locations. Deferred income tax balances reflect the effects of temporary differences between the carrying amounts of assets and liabilities and their tax bases and are stated at enacted tax rates expected to be in effect when taxes are actually paid or recovered. Annually, we file tax returns that represent our filing positions with each jurisdiction and settle our return liabilities. Each jurisdiction has the right to audit those returns and may take different positions with respect to income and expense allocations and taxable earnings determinations. In accordance with Financial Accounting Standards Board (“FASB”) Interpretation No. 48, “Accounting for Uncertainty in Income Taxes – An Interpretation of FASB Statement No. 109” (“FIN 48”), we may provide for estimated liabilities in our consolidated financial statements associated with uncertain tax return filing positions that are subject to audit by various tax authorities. Because the determinations of our annual provisions are subject to judgments and estimates, it is likely that actual results will vary from those recognized in our consolidated financial statements. As a result, additions to, or reductions of, income tax expense will occur each year for prior reporting periods as our estimates change and actual tax returns and tax audits are settled. We recognize any such prior year adjustment in the discrete quarterly period in which it is determined.

- *Acquisition Purchase Price Allocation.* When we acquire a business, product line or rights to a product or technology, we allocate the purchase price to the various tangible and intangible assets acquired and the liabilities assumed, based on their estimated fair values. Determining the fair value of certain assets and liabilities acquired is subjective in nature and often involves the use of significant estimates and assumptions. To assist in this process, we may obtain appraisals from valuation specialists for certain of these items. Most of the assumptions used to determine fair value are made based on forecasted information. The useful lives of amortizable intangible assets are reviewed for reasonableness periodically by management in light of current conditions.
- *Impairment of Long-Lived Assets.* We evaluate the recoverability of our identifiable definite life intangible assets and other long-lived assets in accordance with SFAS No. 144, "Accounting for the Impairment or Disposal of Long-Lived Assets" ("SFAS 144"), which generally requires that we assess these assets for recoverability when events or circumstances indicate a potential impairment by estimating the undiscounted cash flows to be generated from the use and ultimate disposition of these assets. To the extent that the estimated undiscounted cash flows fall below the carrying value of the intangible or other long lived assets we write-down the assets to fair value. Fair value is generally determined based on discounted cash flows. Determining the fair value based on discounted cash flows is subjective in nature and often involves the use of significant estimates and assumptions about future results and discount rates. We evaluate the recoverability of our goodwill in accordance with SFAS No. 142, "Goodwill and Other Intangible Assets" ("SFAS 142"), which requires us to assess our goodwill annually for impairment. Impairment losses are recorded to the extent that the carrying value of the goodwill exceeds the fair value.
- *Stock-Based Compensation.* We record stock-based compensation in accordance with SFAS 123R as discussed in "Stock-based Compensation" in the "Business Overview" section of Item 7.
- *Impairment of Marketable Securities.* We periodically review our marketable securities for impairment. If we conclude that any of our investments are impaired, we determine whether such impairment is "other-than-temporary" as defined under the FASB Staff Position 115-1/124-1, "The Meaning of Other-Than-Temporary Impairment and Its Application to Certain Investments" ("FSP 115-1/124-1"). Factors we consider to make such a determination include, among others, the severity of the impairment, the reason for the decline in value and the potential recovery period, and our intent and ability to hold an investment until a recovery occurs. If any impairment is considered "other-than-temporary," we write down the asset to its fair value and take a corresponding charge to earnings.
- *Contingencies and Litigation.* We evaluate contingent liabilities, including threatened or pending litigation, in accordance with SFAS No. 5, "Accounting for Contingencies," and we record accruals when the loss is deemed probable and the liability can reasonably be estimated. We make these assessments based on the facts and circumstances of each situation and in some instances based in part on the advice of outside legal counsel.

Results of Operations

The following table sets forth certain statement of income data as a percentage of total revenues for the periods indicated:

	<u>2008</u>	<u>2007</u>	<u>2006</u>
Revenues:			
Products	83.5%	85.1%	86.3%
Services	<u>16.5</u>	<u>14.9</u>	<u>13.7</u>
Total revenues	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>
Costs and operating expenses: ⁽¹⁾			
Cost of revenues - products	18.4	18.8	16.3
Cost of revenues - amortization of purchased technology	2.7	3.0	2.6
Cost of revenues - services	2.5	2.2	1.5
Research and development	28.0	27.2	24.1
Sales and marketing	33.8	33.0	32.8
General and administrative	15.4	14.3	13.2
Amortization of intangible assets	0.5	1.1	1.0
Impairment of purchased technology and intangible assets	<u>-</u>	<u>1.9</u>	<u>-</u>
Total costs and operating expenses	<u>101.3</u>	<u>101.5</u>	<u>91.5</u>
(Loss) income from operations	(1.3)	(1.5)	8.5
Interest and other income, net	3.7	6.7	5.2
Other-than-temporary impairment on investments	<u>(11.4)</u>	<u>-</u>	<u>-</u>
(Loss) income before income taxes	(9.0)	5.2	13.7
Income tax expense	<u>-</u>	<u>1.2</u>	<u>6.2</u>
Net (loss) income	<u>(9.0)%</u>	<u>4.0%</u>	<u>7.5%</u>
⁽¹⁾ Stock-based compensation included in:			
Cost of revenues - products	0.3%	0.3%	0.3%
Cost of revenues - services	0.1	0.1	0.1
Research and development	2.4	3.0	3.6
Sales and marketing	1.9	2.5	4.4
General and administrative	1.3	1.5	1.6

Comparison of the Years Ended December 31, 2008 and 2007

Revenues. In 2008, total revenues increased 1.0% to \$175.9 million from \$174.1 million in 2007. This overall increase primarily relates to the \$3.2 million increase in service revenues, partially offset by a \$1.4 million decrease in product revenue. Revenues from services increased to \$29.1 million in 2008 from \$25.9 million in 2007 primarily due to an increase in the ratable recognition of revenues under our extended PCS and warranty contracts and our implied PCS arrangements. Revenues from products decreased to \$146.8 million in 2008 from \$148.2 million in 2007 primarily due to a \$5.5 million decrease in shipments of our software products (primarily our Layer 2/3 and IxChariot software products) in 2008. This decrease in shipments of our software products was partially offset by a \$3.3 million increase in shipments of our interface cards (primarily our Ethernet interface cards) in 2008 compared to 2007. In 2008, total revenues from Cisco Systems, our largest account, decreased to \$36.9 million, or 21.0% of our total revenue, from \$41.7 million, or 23.9% of our total revenue in 2007.

Cost of Revenues. As a percentage of total revenues, our total cost of revenues, including the \$1.5 million impairment charge related to purchased technology recognized in 2007 discussed below, decreased to 23.7%

in 2008 from 24.9% in 2007 due primarily to the impairment charge of \$1.5 million related to purchased technology recognized in 2007. Our cost of product revenues remained relatively flat at \$32.4 million in 2008 and \$32.7 million in 2007. Amortization of purchased technology decreased to \$4.8 million in 2008 from \$5.2 million in 2007 due in part to the completion of amortization periods for certain intangible assets. In 2008, our cost of providing services increased to \$4.5 million from \$3.9 million in 2007 primarily due to costs associated with our technical support team, including warranty costs, partially offset by lower costs related to our professional services business.

Research and Development Expenses. In 2008, research and development expenses increased 3.7% to \$49.2 million from \$47.4 million in 2007. This increase was primarily due to higher compensation and related employee costs of approximately \$2.2 million and a non-recurring benefit of approximately \$400,000 from a favorable property tax ruling in 2007. The higher compensation and related employee costs primarily related to annual salary increases. The above increases were partially offset by a reduction in stock-based compensation expense of approximately \$1.1 million in 2008.

Sales and Marketing Expenses. In 2008, sales and marketing expenses increased 3.4% to \$59.4 million from \$57.4 million in 2007. This increase was primarily due to higher compensation and related employee costs of approximately \$1.7 million, higher travel expense of approximately \$448,000, and a non-recurring benefit of approximately \$400,000 from a favorable property tax ruling that occurred in 2007. The higher compensation and related employee costs in 2008 compared to 2007 primarily related to additions to our sales and marketing team and annual salary increases, partially offset by lower commissions earned by sales personnel. The above net increase was partially offset by a reduction in stock-based compensation expense of approximately \$1.0 million in 2008.

General and Administrative Expenses. In 2008, general and administrative expenses increased 8.1% to \$26.9 million from \$24.9 million in 2007. During 2008, general and administrative expenses included \$1.4 million in professional fees and other costs related to certain strategic initiatives. During 2007, general and administrative expenses included \$1.2 million in professional fees, temporary assistance and other costs related to the completion during 2007 of the restatement of certain of our previously filed financial statements as more fully described in our 2006 Form 10-K. Excluding the above costs, general and administrative expenses for 2008 and 2007 were \$25.5 million and \$23.7 million, respectively. This increase of approximately \$1.8 million in 2008 as compared to the same period in 2007 was primarily due to higher professional fees of \$1.3 million principally related to litigation costs, higher rent and other facilities costs at our corporate headquarters of \$861,000, and higher compensation and related employee costs of \$403,000 due in part to annual salary increases. These increases were partially offset by lower recruiting fees of \$428,000 and lower stock-based compensation of \$300,000 in 2008.

Amortization of Intangible Assets. In 2008, amortization of intangible assets decreased to \$886,000 from \$1.9 million in 2007. This decrease was primarily related to the completion of amortization periods for certain intangible assets during 2008 and the impairment charge recorded in 2007 attributable to certain intangible assets related to the acquisition of Communication Machinery Corporation in July 2005 and the acquisition of the mobile video test product line from Dilithium Networks in January 2006.

Impairment of Purchased Technology and Intangible Assets. In 2007, we recognized impairment charges of \$1.5 million attributable to purchased technology and \$1.8 million attributable to certain intangible assets related to the wireless LAN testing tools acquired as part of Communication Machinery Corporation in July 2005 and the acquisition of the mobile video test product line from Dilithium Networks in January 2006. Under SFAS 144, we determined that the future expected undiscounted cash flows were less than the carrying value of the affected identifiable intangible assets, which indicated that an impairment existed. To measure the impairment, we used the discounted cash flow approach to reduce the carrying value of the affected assets to fair value, which resulted in the \$3.3 million impairment of the above noted purchased technology and other identifiable intangible assets. See Note 6 to our Consolidated Financial Statements.

Interest and Other Income, Net. Interest and other income, net decreased to \$6.6 million in 2008 from \$11.7 million in 2007. This decrease was primarily due to the lower effective yields during 2008 as compared to the same period in 2007.

Other-than-temporary Impairment on Investments. In 2008, other-than-temporary impairments on investments totaled \$20.2 million. There were no such impairments in 2007. When, in the opinion of management, a decline in the fair value of an investment is considered to be other-than-temporary, such investment is written down to its fair value. During 2008, other-than-temporary impairments on investments included an impairment charge of \$15.8 million (pre-tax) to earnings related to our illiquid auction rate securities ("ARS") and an impairment charge of \$4.4 million (pre-tax) to earnings related to our investments in bonds issued by Lehman Brothers Holdings, Inc. ("LBHI"). As of December 31, 2008, the estimated fair values of our ARS and LBHI bonds approximated \$3.2 million and \$446,000, respectively. See below under "Liquidity and Capital Resources" and Notes to Consolidated Financial Statements for additional information.

Income Tax Expense. Income tax expense decreased to \$21,000, or an effective rate of -0.1%, in 2008 from \$2.1 million, or an effective rate of 23.2%, in 2007. The effective tax rate in 2008 differs from the effective tax rate in 2007 primarily due to a decrease in pre-tax book earnings.

Comparison of the Years Ended December 31, 2007 and 2006

Revenues. In 2007, total revenues decreased 3.3% to \$174.1 million from \$180.1 million in 2006. This overall decrease primarily relates to the \$7.2 million decrease in product revenues in 2007 compared to 2006. This decrease in product revenues was primarily due to the \$25.9 million reversal of deferred revenue related to the cessation of implied PCS obligations recorded during the year ended December 31, 2006, as compared to no reversals during the year ended December 31, 2007. This decrease was partially offset by a \$10.8 million increase in shipments of our Ethernet interface cards and software products, such as IxNetwork, IxLoad and IxAutomate, in 2007 over the same period in 2006, and by a \$9.9 million lower revenue deferral for implied PCS in 2007 compared to 2006. In 2007, revenues from services increased 4.7% to \$25.9 million from \$24.7 million in 2006. In 2007, total revenues from Cisco Systems, our largest account, decreased to \$41.7 million, or 23.9% of our total revenue, from \$46.3 million, or 25.7% of our total revenue in 2006.

Cost of Revenues. As a percentage of total revenues, our total cost of revenues, including the \$1.5 million impairment charge related to purchased technology discussed below, increased to 24.9% in 2007 from 20.4% in 2006. Excluding the reversals of implied PCS deferred revenue of \$0 and \$25.9 million from total revenues in 2007 and 2006, respectively, total cost of revenues as a percentage of total revenues was 24.9% and 23.9%, respectively, in the two periods. This increase was primarily due to the impairment charge of \$1.5 million related to purchased technology. Our cost of product revenues increased 11.2% to \$32.7 million in 2007 from \$29.4 million in 2006 primarily due to increases in product shipments and manufacturing and operations costs. Amortization of purchased technology increased to \$5.2 million in 2007 from \$4.7 million in 2006. This increase related to the higher amortization of intangible asset charges associated with the acquisitions of certain technologies in 2006 and in 2007. In 2007, our cost of providing services increased to \$3.9 million from \$2.7 million in 2006 primarily due to higher technical support and warranty costs, as well as additional expenses related to our professional services business.

Research and Development Expenses. In 2007, research and development expenses increased 9.1% to \$47.4 million from \$43.5 million in 2006. This increase was primarily due to an increase in compensation and related employee costs of approximately \$3.3 million, an increase in depreciation expense of \$898,000, and an increase in facilities costs of \$683,000. These increases were primarily due to the growth of our international product development operations in India and Romania and were partially offset by a reduction in stock-based compensation expense of approximately \$1.2 million and a non-recurring benefit of approximately \$400,000 from a favorable property tax ruling in 2007.

Sales and Marketing Expenses. In 2007, sales and marketing expenses decreased to \$57.4 million from \$59.0 million in 2006. This decrease was primarily due to a decrease in stock-based compensation expense of approximately \$3.4 million, partially offset by an increase in compensation and related employee costs of approximately \$1.6 million, which includes a severance charge of \$745,000.

General and Administrative Expenses. In 2007, general and administrative expenses increased 4.7% to \$24.9 million from \$23.8 million in 2006. This increase was primarily due to higher compensation and related employee costs of approximately \$1.4 million primarily due to the addition of personnel in our accounting and legal departments. During 2007 and 2006, general and administrative expenses included \$1.2 million and \$1.3 million, respectively, in professional fees, temporary assistance and other costs related to the completion during 2007 of the restatement of certain of our previously filed financial statements as more fully described in our 2006 Form 10-K.

Amortization of Intangible Assets. In 2007, amortization of intangible assets increased to \$1.9 million from \$1.7 million in 2006. This increase was primarily the result of increases in intangible assets resulting from the acquisitions of certain technologies in 2006 and 2007.

Impairment of Purchased Technology and Intangible Assets. In 2007, we recognized impairment charges of \$1.5 million attributable to purchased technology and \$1.8 million attributable to certain intangible assets related to the wireless LAN testing tools acquired as part of Communication Machinery Corporation in July 2005 and the acquisition of the mobile video test product line from Dilithium Networks in January 2006. Under SFAS 144, we determined that the future expected undiscounted cash flows were less than the carrying value of the affected identifiable intangible assets, which indicated that an impairment existed. To measure the impairment, we used the discounted cash flow approach to reduce the carrying value of the affected assets to fair value, which resulted in the \$3.3 million impairment of the above noted purchased technology and other identifiable intangible assets. See Note 6 to our Consolidated Financial Statements.

Interest and Other Income, Net. Interest and other income, net increased to \$11.7 million in 2007 from \$9.4 million in 2006. This increase was largely attributable to larger cash and investment balances in the aggregate during 2007 as compared to 2006.

Income Tax Expense. Income tax expense decreased to \$2.1 million, or an effective rate of 23.2%, in 2007 from \$11.2 million, or an effective rate of 45.4%, in 2006. The effective tax rate in 2007 differs from the effective tax rate in 2006 due in part to an increase in disqualifying dispositions of incentive stock options, a decrease in non-deductible stock-based compensation expense and a decrease in state income taxes.

Liquidity and Capital Resources

We have funded our operations with our cash balances, cash generated from operations and proceeds from our initial public offering.

	Year Ended December 31,		
	2008	2007	2006
Cash, cash equivalents and investments	206,298	248,500	221,701
Cash provided by operating activities	24,335	45,769	33,911
Cash provided by (used in) investing activities	19,082	78,491	(26,980)
Cash (used in) provided by financing activities	(39,518)	(12)	5,876

As of December 31, 2008, we had cash and cash equivalents of \$192.8 million compared to \$188.9 million as of December 31, 2007. Our cash, cash equivalents and short- and long-term investments, when viewed as a whole, decreased to \$206.3 million as of December 31, 2008 from \$248.5 million as of December 31, 2007 primarily due to the repurchase of \$43.6 million of our common stock pursuant to our stock buyback programs.

Net cash provided by operating activities was \$24.3 million in 2008, \$45.8 million in 2007 and \$33.9 million in 2006. Net cash generated from operations in 2008, 2007 and 2006 was primarily provided by net (loss) income of \$(15.9) million, \$7.0 million and \$13.5 million, respectively, adjusted for non-cash items and changes in working capital components.

In 2008, 2007 and 2006, non-cash items included \$17.2 million, \$18.7 million and \$16.5 million, respectively, for depreciation and amortization of fixed and intangible assets and non-cash stock-based compensation charges of \$10.6 million, \$13.0 million and \$18.0 million, respectively. In 2008, non-cash items also included a \$20.2 million other-than-temporary impairment charge, which consisted of a charge of \$15.8 million related to our illiquid auction rate securities and a charge of \$4.4 million related to our investments in bonds issued by LBHL. In 2007, non-cash items included a \$3.3 million impairment charge related to previously acquired purchased technology and certain other intangible assets from Communication Machinery Corporation in July 2005 and from Dillithium Networks in January 2006. Changes in working capital in 2007 included an increase of \$3.8 million whereas 2006 included a decrease of \$4.7 million, related to changes in accounts receivable due in part to the timing of shipments to customers. Changes in working capital in 2006 included a decrease of \$15.0 million in deferred revenues primarily due to reversals of implied PCS deferred revenue as a result of the license management of certain products and our determination not to provide PCS after the expiration of the contractual PCS period. Also in 2006, net deferred tax assets decreased by \$5.7 million due in part to the increase in reversals of implied PCS deferred revenue in 2007 as compared to 2006.

Cash provided by investing activities was \$19.1 million in 2008 and \$78.5 million in 2007, as compared to a cash outflow of \$27.0 million in 2006. In 2008, cash provided by investing activities principally consisted of \$30.2 million related to the net proceeds from marketable securities, partially offset by \$8.5 million related to the purchase of property and equipment and \$2.2 million related to payments made in connection with acquisitions of certain technologies. In 2007, cash provided by investing activities principally consisted of \$92.8 million related to the net proceeds from marketable securities, partially offset by \$10.9 million related to the purchase of property and equipment and \$3.2 million related to payments made in connection with acquisitions of certain technologies. In 2006, cash used in investing activities principally consisted of \$7.2 million related to the net purchases of marketable securities, \$12.3 million for the purchase of property and equipment, \$5.2 million related to the January 2006 purchase of certain product lines from Dillithium Networks and \$2.1 million related to the June 2006 acquisition of certain technology from Bell Canada.

Net cash (used in) provided by financing activities was \$(39.5) million in 2008, \$(12,000) in 2007 and \$5.9 million in 2006. In 2008 and 2007, cash used in financing activities principally consisted of the repurchase of our common stock pursuant to our stock buyback programs of \$43.6 million and \$9.2 million, respectively, partially offset by proceeds related to the exercise of stock options, warrants and employee stock purchase plan options of \$3.9 million and \$8.9 million, respectively. In 2006, financing activities provided \$5.9 million and consisted principally of proceeds related to the exercise of stock options and employee stock purchase plan options.

The continuing adverse conditions in the financial markets have reduced our ability to liquidate our auction rate securities that we have classified as long-term investments in marketable securities on our balance sheet. Of our total cash and investments balance of \$206.3 million as of December 31, 2008, \$3.2 million (\$19.0 million at par value, or cost) consists of illiquid auction rate securities. Given the disruption in the market for auction rate securities, there is no longer an actively quoted market price for these securities. Accordingly, we utilized a model to estimate the fair value of these auction rate securities based on, among other items: (i) the

underlying structure of each security; (iii) the present value of future principal, interest and/or dividend payments discounted at rates considered to reflect current market conditions; (iii) consideration of the probabilities of default, auction failure, or repurchase at par for each period; and (iv) estimates of the recovery rates in the event of default for each security. These estimated fair values could change significantly based on future market conditions. During the fourth quarter of 2008, the estimated fair values of our auction rate securities declined substantially due to, among other things, significant credit rating downgrades and the conversion of nearly 80% of our auction rate securities (at par value) from an auction rate debt security to auction market preferred stock ("AMPS") of Ambac Assurance Corporation ("Ambac"). The AMPS is not registered, and provides holders with when and if declared dividends. In light of the above and impact of the deepening financial crisis on banks and financial institutions, we believe that our auction rate security investments are other-than-temporarily impaired as it is probable that we will not collect the original principal amounts and the monthly interest or dividend payments. Accordingly, during the fourth quarter of 2008, we recorded an unrealized other-than-temporary impairment charge of \$15.8 million (pre-tax) to earnings related to our auction rate securities, which included the reclassification of the unrealized temporary loss of \$4.7 million (pre-tax) recorded through other comprehensive income for the year ended December 31, 2007.

The following table sets forth the fair value adjustments to our auction rate securities for the year ended December 31, 2008 (in thousands):

	Investments in Marketable Securities (Non-current)
Balance at December 31, 2007	\$ 14,345
Unrealized loss recorded to other comprehensive income	(11,134)
Balance at December 31, 2008	<u>\$ 3,211</u>

We will continue to monitor the market for auction rate securities. The fair value of our investments in auction rate securities may be adversely impacted by, among other events: (i) a further deterioration in market conditions; (ii) further declines in the credit quality of our auction rate securities or of the issuers of our auction rate securities; or (iii) a cessation of dividend payments or default on interest or principal payments by the issuer of the securities. Should such an event occur, we may need to record additional unrealized losses related to these securities.

We continuously monitor our investment portfolio and actively manage our investments to preserve principal values whenever possible. However, we currently hold investments in corporate debt securities that could be subject to default by the issuer or could suffer declines in fair value that become other-than-temporary. We currently hold bonds issued by LBHI with a face value of \$5.0 million and maturity date in July 2010. In September 2008, LBHI filed for bankruptcy. As a result, the credit rating of our LBHI bonds was significantly downgraded and LBHI ceased making interest payments on the bonds. We believe that our investment in the LBHI bonds is other-than-temporarily impaired as it is probable that we will not collect the total interest and principal amounts due according to the contractual terms of the bonds. To estimate the fair value of our LBHI bonds, we used the average of three indications of value, consisting of the estimated fair value per our investment brokerage/custodial statement and two non-binding market quotes. As of December 31, 2008, the estimated fair value of our LBHI bonds was determined to be \$446,000. For the year ended December 31, 2008, we recorded pre-tax other-than-temporary impairment charges of \$4.4 million (i.e., the difference between our then carrying value and estimated fair value of our LBHI bonds) to earnings. It is possible that we could recognize future impairment charges on our LBHI bonds or other corporate debt securities we currently own if future events, new information or the passage of time cause us to determine that a decline in our carrying value is other-than-temporary.

As of December 31, 2008, over 93% of our cash and investment balance of \$206.3 million was invested in U.S. Treasury-based money market funds or held in our operating cash accounts. See Notes to Consolidated Financial Statements for additional information.

We believe that our existing balances of cash and cash equivalents, investments and cash flows expected to be generated from our operations will be sufficient to satisfy our operating requirements for at least the next twelve months. Nonetheless, we may seek additional sources of capital as necessary or appropriate to fund acquisitions or to otherwise finance our growth or operations; however, there can be no assurance that such funds, if needed, will be available on favorable terms, if at all. Our access to the capital markets to raise funds, through the sale of equity or debt securities, is subject to various factors, including the timely filing of our periodic reports with the Commission.

Financial Commitments

Our significant financial commitments at December 31, 2008 are as follows (in thousands):

	Total	Less than 1 year	1 – 3 years	3 – 5 years	More than 5 years
Operating leases	\$ 20,730	\$ 5,666	\$ 9,213	\$ 5,410	\$ 441
Purchase obligations	641	641	-	-	-
	<u>\$ 21,371</u>	<u>\$ 6,307</u>	<u>\$ 9,213</u>	<u>\$ 5,410</u>	<u>\$ 441</u>

Purchase obligations in the table above consist of purchase orders issued to certain of our contract manufacturers in the normal course of business to purchase specified quantities of certain interface cards and chassis. It is not our intent, nor is it reasonably likely, that we would cancel these executed purchase orders.

As of December 31, 2008, we had a net liability for uncertain tax positions of approximately \$3.6 million, which may be payable by us in the future. We are not able to reasonably estimate the timing of the payments or the amount by which the liability for uncertain tax positions will increase or decrease over time; therefore, the liability of \$3.6 million is excluded from the table above. See Note 7 to our Consolidated Financial Statements.

Recent Accounting Pronouncements

In June 2008, the Financial Accounting Standards Board ("FASB") issued FSP EITF 03-6-1, "Determining Whether Instruments Granted in Share-Based Payment Transactions Are Participating Securities." This FSP provides that unvested share-based payment awards that contain non-forfeitable rights to dividends or dividend equivalents (whether paid or unpaid) are participating securities and shall be included in the computation of earnings per share pursuant to the two-class method. The FSP is effective for financial statements issued for interim periods and fiscal years beginning after December 15, 2008. Upon adoption, we are required to retrospectively adjust our earnings per share data (including any amounts related to interim periods, summaries of earnings and selected financial data) to conform with the provisions in this FSP. We are currently evaluating the impact, if any, that the adoption of this FSP will have on our earnings per share amounts.

In April 2008, the FASB issued FSP No. FAS 142-3, "Determination of the Useful Life of Intangible Assets" ("FSP 142-3"). This FSP amends the factors that should be considered in developing renewal or extension assumptions used to determine the useful life of a recognized intangible asset under FASB No. 142, "Goodwill and Other Intangible Assets" ("SFAS 142"). The intent of this FSP is to improve the consistency between the useful life of a recognized intangible asset under SFAS 142, the period of expected cash flows used to measure the fair value of the asset under FASB Statement No. 141R, and other U.S. generally accepted accounting principles ("GAAP"). This FSP is effective for financial statements issued for interim periods and fiscal years beginning after December 15, 2008. FSP 142-3 will have an impact on our accounting for business combinations completed after January 1, 2009.

In December 2007, the FASB issued SFAS No. 141R, "Business Combinations" ("SFAS 141R"). SFAS 141R establishes principles and requirements for how the acquirer of a business recognizes and measures in its financial statements the identifiable assets acquired, the liabilities assumed and any noncontrolling interest in the acquiree. SFAS 141R also provides guidance for recognizing and measuring the goodwill acquired in the business combination and determines what information to disclose to enable users of the financial statements to evaluate the nature and financial effects of the business combination. SFAS 141R is effective for financial statements issued for fiscal years beginning after December 15, 2008. Early adoption of this standard is not permitted. SFAS 141R requires prospective application for all acquisitions after the date of adoption. We expect SFAS 141R to have an impact on our consolidated financial statements when effective, but the timing, nature and magnitude of the specific effects will depend upon the nature, terms and size of the acquisitions we consummate after the effective date.

In December 2007, the FASB issued SFAS No. 160, "Noncontrolling Interests in Consolidated Financial Statements, an amendment of ARB No. 51" ("SFAS 160"). SFAS 160 establishes accounting and reporting standards for ownership interests in subsidiaries held by parties other than the parent, the amount of consolidated net income attributable to the parent and to the noncontrolling interest, changes in a parent's ownership interest, and the valuation of retained noncontrolling equity investments when a subsidiary is deconsolidated. SFAS 160 also establishes disclosure requirements that clearly identify and distinguish between the interests of the parent and the interests of the noncontrolling owners. This statement is effective for us beginning January 1, 2009. We believe that the adoption of SFAS 160 will not have a significant impact on our consolidated financial position, results of operations or cash flows.

On January 1, 2008, we adopted certain provisions of SFAS No. 157, "Fair Value Measurements" ("SFAS 157"), which defines fair value, establishes a framework for measuring fair value in GAAP, and expands disclosures about fair value measurements. The provisions of SFAS 157 relate to financial assets and liabilities as well as other assets and liabilities carried at fair value on a recurring basis and liabilities and did not have a material impact on our consolidated financial position, results of operations or cash flows. The provisions of SFAS 157 related to nonfinancial assets and liabilities will be effective for us on January 1, 2009 in accordance with FSP FAS 157-2, "Effective Date of FASB Statement No. 157" ("FSP FAS 157-2") and will be applied prospectively. We do not expect that the adoption of the remaining aspects of SFAS 157 to have a material impact on our consolidated financial position, results of operations or cash flows. See Note 4 to our Consolidated Financial Statements for disclosures required by this new pronouncement.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

Interest Rate Sensitivity

The primary objective of our investment activities is to maintain the safety of principal and preserve liquidity while maximizing yields without significantly increasing risk. Some of the securities that we have invested in may be subject to market risk. This means that a change in prevailing interest rates may cause the principal amount of the investment to fluctuate. We maintain our portfolio of cash equivalents and investments in a variety of securities, including commercial paper, government and federal agency securities, corporate debt securities, auction rate securities and money market funds. Our cash equivalents and investments consist of both fixed and variable rate securities. We do not use any derivatives or similar instruments to manage our interest rate risk. Fixed-rate securities may have their fair market value adversely impacted due to a rise in interest rates. Currently, the carrying amount of our fixed rate securities approximates fair market value. Our fixed rate securities are currently classified as available-for-sale securities. While we do not intend to sell these fixed rate securities prior to maturity based on a sudden change in market interest rates, should we choose to sell these securities in the future, our consolidated operating results or cash flows may be adversely affected. A significant portion of our cash equivalents and investments portfolio consists of variable interest rate securities. Accordingly, we also have interest rate risk with these variable rate securities as the income produced may decrease if interest rates fall. The continuing adverse conditions in the credit markets has caused a macro shift in investments into highly liquid short-term investments such as U.S. Treasury bills. This has caused a significant decline in short-term interest rates, which we expect will reduce future interest income. As of December 31, 2008, the substantial majority of our cash and investment balance was invested in U.S. Treasury-based money market funds with yields of less than 100 basis points. In addition, further deterioration of the financial markets, among other factors, may require us to record additional impairments of our investments.

Exchange Rate Sensitivity

The majority of our revenue and expenses are denominated in U.S. dollars. However, since we have sales, marketing and development operations outside of the United States, we do have some transactions that are denominated in foreign currencies, primarily the Japanese Yen, Romanian Lei, Indian Rupee, Chinese Yuan, Singapore Dollar, Euro and British Pound. We utilize foreign currency forward contracts to hedge certain accounts receivable amounts that are denominated in Japanese Yen. These contracts are used to reduce our risk associated with exchange rate movements, as gains and losses on these contracts are intended to offset exchange losses and gains on underlying exposures. Changes in the fair value of these forward contracts are recorded immediately in earnings. We do not enter into foreign exchange forward contracts for speculative or trading purposes and we do not expect net gains or losses on these derivative instruments to have a material impact on our results of operations or cash flows.

Item 8. Financial Statements and Supplementary Data

Our financial statements and supplementary data required by this Item are provided in the consolidated financial statements of the Company included in this Form 10-K as listed in Item 15(a) of this Form 10-K.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Based on our management's evaluation (with the participation of our Chief Executive Officer and Chief Financial Officer), as of the end of the period covered by this Annual Report, our Chief Executive Officer and Chief Financial Officer have concluded that our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the "Exchange Act")), were effective to ensure that information required to be disclosed by us in reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in Securities and Exchange Commission rules and forms and is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. Our internal control over financial reporting is a process designed by, or under the supervision of, our Chief Executive Officer and Chief Financial Officer, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of our financial statements for external purposes in accordance with U.S. generally accepted accounting principles ("GAAP"). Because of its inherent limitations, our internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with policies or procedures may deteriorate.

As of December 31, 2008, our management (with the participation of our Chief Executive Officer and Chief Financial Officer) conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"). Based on this evaluation, management concluded that our internal control over financial reporting was effective as of December 31, 2008 based on criteria in *Internal Control - Integrated Framework* issued by the COSO. The effectiveness of our internal control over financial reporting as of December 31, 2008 has been audited by PricewaterhouseCoopers LLP, our independent registered public accounting firm, as stated in their report which is included elsewhere herein.

Changes in Internal Control over Financial Reporting

There have not been any changes in our internal control over financial reporting (as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) during the fiscal quarter ended December 31, 2008 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Inherent Limitations on Effectiveness of Controls

Our management, including our Chief Executive Officer and our Chief Financial Officer, does not expect that our disclosure controls and procedures or our internal control over financial reporting are or will be capable of preventing or detecting all errors and all fraud. Any controls, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the objectives of the controls will be met. The design of controls must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Further, because of the inherent limitations in all controls, no evaluation of controls can

provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud, if any, within the Company have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty and that breakdowns can occur because of simple error or mistake. Controls can also be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the controls. The design of controls is based in part on certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions.

Item 9B. Other Information

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

Certain information required by this Item is incorporated herein by reference to information appearing in our definitive Proxy Statement for our Annual Meeting of Shareholders to be held on May 28, 2009, which information will appear under the captions entitled "Proposal 1 - Election of Directors," "Executive Officers" and "Section 16(a) Beneficial Ownership Reporting Compliance." The Proxy Statement will be filed with the Commission within 120 days after our last fiscal year-end which was December 31, 2008.

The Registrant has adopted a Code of Ethics for its Chief Executive and Senior Financial Officers, a copy of which is included as Exhibit 14.1 to this Annual Report on Form 10-K.

Item 11. Executive Compensation

The information required by this Item is incorporated herein by reference to information appearing in our definitive Proxy Statement for our Annual Meeting of Shareholders to be held on May 28, 2009, which information will appear under the captions "Proposal 1 - Election of Directors - Compensation of Directors," "Executive Compensation and Other Information," "Compensation Discussion and Analysis" and "Compensation Committee Report." The Proxy Statement will be filed with the Commission within 120 days after our last fiscal year-end which was December 31, 2008.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The information required by this Item is incorporated herein by reference to information appearing in our definitive Proxy Statement for our Annual Meeting of Shareholders to be held on May 28, 2009, which information will appear under the captions "Common Stock Ownership of Principal Shareholders and Management" and "Executive Compensation and Other Information - Equity Compensation Plan Information." The Proxy Statement will be filed with the Commission within 120 days after our last fiscal year-end which was December 31, 2008.

Item 13. Certain Relationships and Related Transactions, and Director Independence

Any information required by this Item is incorporated herein by reference to information appearing in our definitive Proxy Statement for our Annual Meeting of Shareholders to be held on May 28, 2009, which information will appear under the caption entitled "Certain Relationships and Related Transactions," and "Proposal 1 – Election of Directors." The Proxy Statement will be filed with the Commission within 120 days after our last fiscal year-end which was December 31, 2008.

Item 14. Principal Accounting Fees and Services

The information required by this Item is incorporated herein by reference to information appearing in our definitive Proxy Statement for our Annual Meeting of Shareholders to be held on May 28, 2009, which information will appear under the caption "Proposal 4 - Ratification of Appointment of Independent Registered Public Accounting Firm." The Proxy Statement will be filed with the Commission within 120 days after our last fiscal year-end which was December 31, 2008.

PART IV

Item 15. Exhibits, Financial Statement Schedules

(a) The following documents are filed as part of this Report:

(1) Consolidated Financial Statements

The consolidated financial statements listed in the accompanying Index to Consolidated Financial Statements are filed as part of this report.

(2) Financial Statement Schedule

The financial statement schedules have been omitted because they are not applicable or the information required to be set forth therein is included in the consolidated financial statements or notes thereto.

(3) Exhibits

- 3.1 Amended and Restated Articles of Incorporation, as amended⁽¹⁾
- 3.2 Bylaws, as amended⁽²⁾
- 10.1* Amended and Restated 1997 Equity Incentive Plan⁽³⁾
- 10.2* Amended and Restated Non-Employee Director Stock Option Plan⁽⁴⁾
- 10.3* Employee Stock Purchase Plan⁽⁵⁾
- 10.3.1* Amendment No. 1, dated May 9, 2003, to Ixia Employee Stock Purchase Plan⁽⁶⁾
- 10.3.2* Supplemental Provisions, effective April 14, 2006, to Ixia Employee Stock Purchase Plan⁽⁷⁾
- 10.4* Officer Severance Plan⁽⁸⁾, together with Amendment to the Officer Severance Plan⁽⁹⁾
- 10.5* Ixia Officer Severance Plan (as Amended and Restated effective January 1, 2009)⁽¹⁰⁾
- 10.6* Form of Indemnity Agreement between Ixia and its directors and executive officers⁽¹¹⁾
- 10.7 Office Lease Agreement dated September 14, 2007 between MS LPC Malibu Property Holdings, LLC and Ixia⁽¹²⁾
- 10.8 License, Distribution and Option Agreement, dated July 7, 2003, between NetIQ Corporation and Ixia⁽¹³⁾
- 10.9 First Amendment to License, Distribution and Option Agreement dated as of January 6, 2005 between the Registrant and NetIQ Corporation⁽¹⁴⁾

10.10	Second Amendment to License, Distribution and Option Agreement dated as of June 16, 2005 between the Registrant and NetIQ Corporation ⁽¹⁵⁾⁽¹⁶⁾
10.11*	Summary of 2007 Compensation for the Registrant's Named Executive Officers ⁽¹⁷⁾
10.12*	Compensation of Named Executive Officers and Chief Executive Officer for 2008
10.13*	Summary of Compensation for the Registrant's Non-Employee Directors ⁽¹⁸⁾
10.14*	2007 Executive Officer Bonus Plan ⁽¹⁹⁾
10.15*	Ixia 2008 Executive Officer Bonus Plan ⁽²⁰⁾
10.16*	Employment Offer Letter Agreement dated as of August 8, 2007 between the Company and Atul Bhatnagar ⁽²¹⁾
10.17*	Ixia 2008 Equity Incentive Plan, including Amendment No. 1 dated May 28, 2008 ⁽²²⁾
14.1	Code of Ethics for Chief Executive and Senior Financial Officers ⁽²³⁾
21.1	Subsidiaries of the Registrant
23.1	Consent of PricewaterhouseCoopers LLP, Independent Registered Public Accounting Firm
31.1	Certificate of Chief Executive Officer of Ixia pursuant to Rule 13a-14(a) under the Exchange Act, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certificate of Chief Financial Officer of Ixia pursuant to Rule 13a-14(a) under the Exchange Act, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certificate of Chief Executive Officer and Chief Financial Officer of Ixia pursuant to Rule 13a-14(b) under the Exchange Act and Section 906 of the Sarbanes-Oxley Act of 2002.

* Constitutes a management contract or compensatory plan or arrangement required to be filed as an exhibit to this Annual Report on Form 10-K.

- (1) Incorporated by reference to Exhibit No. 3.1 to Amendment No. 2 to the Registrant's Registration Statement on Form S-1 (Reg. No. 333-42678) filed with the Commission on September 5, 2000.
- (2) Incorporated by reference to Exhibit No. 3.1 to the Registrant's Current Report on Form 8-K (File No. 000-31523) filed with the Commission on November 16, 2007.
- (3) Incorporated by reference to Exhibit 4.1 to the Registrant's Registration Statement on Form S-8 (Reg. No. 333-117969) filed with the Commission on August 5, 2004.
- (4) Incorporated by reference to Exhibit 4.2 to the Registrant's Registration Statement on Form S-8 (Reg. No. 333-117969) filed with the Commission on August 5, 2004.
- (5) Incorporated by reference to Exhibit No. 10.3 to Amendment No. 1 to the Registrant's Registration Statement on Form S-1 (Reg. No. 333-42678) filed with the Commission on September 5, 2000.
- (6) Incorporated by reference to Exhibit 4.2 to the Registrant's Registration Statement on Form S-8 (Registration No. 333-107818) filed with the Commission on August 8, 2003.
- (7) Incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K (File No. 000-31523) filed with the Commission on April 20, 2006.
- (8) Incorporated by reference to Exhibit No. 10.4 to Amendment No. 1 to the Registrant's Registration Statement on Form S-1 (Reg. No. 333-42678) filed with the Commission on September 5, 2000.
- (9) Incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K (File No. 000-31523) filed with the Commission on January 7, 2009.

- {10} Incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K (File No. 000-31523) filed with the Commission on January 7, 2009.
- {11} Incorporated by reference to Exhibit No. 10.5 to Amendment No. 1 to the Registrant's Registration Statement on Form S-1 (Reg. No. 333-42678) filed with the Commission on September 5, 2000.
- {12} Incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K (File No. 000-31523) filed with the Commission on September 25, 2007.
- {13} Incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K (File No. 000-31523) filed with the Commission on August 19, 2003.
- {14} Incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q (File No. 000-31523) for the fiscal quarter ended June 30, 2005.
- {15} Incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q (File No. 000-31523) for the fiscal quarter ended June 30, 2005.
- {16} Confidential treatment has been requested with respect to a portion of this exhibit, which portion has been omitted and filed separately with the Commission.
- {17} Incorporated by reference to Exhibit 10.15 to the Registrant's Annual Report on Form 10-K (File No. 000-31523) for the fiscal year ended December 31, 2007.
- {18} Incorporated by reference to Exhibit 10.17 to the Registrant's Annual Report on Form 10-K (File No. 000-31523) for the fiscal year ended December 31, 2006.
- {19} Incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K (File No. 000-31523) filed with the Commission on July 26, 2007.
- {20} Incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K (File No. 000-31523) filed with the Commission on April 17, 2008.
- {21} Incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K (File No. 000-31523) filed with the Commission on September 4, 2007.
- {22} Incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K (File No. 000-31523) filed with the Commission on June 3, 2008.
- {23} Incorporated by reference to Exhibit 14.1 to the Registrant's Annual Report on Form 10-K (File No. 000-31523) for the fiscal year ended December 31, 2003.

(b) Exhibits

See the list of Exhibits under Item 15(a)(3) of this Annual Report on Form 10-K.

(c) Financial Statement Schedules

See the Schedule under Item 15(a)(2) of this Annual Report on Form 10-K.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Dated: March 6, 2009

IXIA

/s/ ATUL BHATNAGAR

Atul Bhatnagar
Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this Report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

<u>Name</u>	<u>Title</u>	<u>Date</u>
<u>/s/ ATUL BHATNAGAR</u> Atul Bhatnagar	President, Chief Executive Officer and Director (Principal Executive Officer)	March 6, 2009
<u>/s/ THOMAS B. MILLER</u> Thomas B. Miller	Chief Financial Officer (Principal Financial and Accounting Officer)	March 6, 2009
<u>/s/ ERROL GINSBERG</u> Errol Ginsberg	Chief Innovation Officer and Chairman of the Board	March 6, 2009
<u>/s/ JON F. RAGER</u> Jon F. Rager	Director	March 6, 2009
<u>/s/ GAIL HAMILTON</u> Gail Hamilton	Director	March 6, 2009
<u>/s/ JONATHAN FRAM</u> Jonathan Fram	Director	March 6, 2009
<u>/s/ LAURENT ASSCHER</u> Laurent Asscher	Director	March 6, 2009

IXIA

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Report of Independent Registered Public Accounting Firm

To Board of Directors and Stockholders of Ixia:

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of income, shareholders' equity and cash flows present fairly, in all material respects, the financial position of Ixia and its subsidiaries at December 31, 2008 and 2007, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2008 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2008, based on criteria established in *Internal Control - Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for these financial statements, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control Over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on these financial statements and on the Company's internal control over financial reporting based on our integrated audits. We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

As discussed in Note 1 to the consolidated financial statements, the Company changed the manner in which it accounts for uncertain tax positions in 2007.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ PricewaterhouseCoopers LLP

Los Angeles, California
March 5, 2009

IXIA
Consolidated Balance Sheets
(in thousands)

	December 31, 2008	December 31, 2007
Assets		
Current assets:		
Cash and cash equivalents	\$ 192,791	\$ 188,892
Short-term investments in marketable securities	9,850	4,999
Accounts receivable, net	34,001	32,405
Inventories	14,966	12,731
Deferred income taxes	4,855	5,613
Prepaid expenses and other current assets	4,981	3,385
Total current assets	261,444	248,025
Investments in marketable securities	3,657	54,609
Property and equipment, net	18,506	21,433
Deferred income taxes	14,945	13,543
Intangible assets, net	10,592	14,147
Goodwill	16,728	16,728
Other assets	2,554	955
Total assets	<u>\$ 328,426</u>	<u>\$ 369,440</u>
Liabilities and Shareholders' Equity		
Current liabilities:		
Accounts payable	\$ 4,729	\$ 2,474
Accrued expenses	18,823	19,440
Deferred revenues	19,558	18,748
Income taxes payable	452	1,304
Total current liabilities	43,562	41,966
Deferred revenues	6,109	7,167
Other liabilities	5,559	3,807
Total liabilities	55,230	52,940
Commitments and contingencies (Note 8)		
Shareholders' equity:		
Preferred stock, without par value; 1,000 shares authorized and none outstanding	-	-
Common stock, without par value; 200,000 shares authorized at December 31, 2008 and 2007; 63,391 and 68,171 shares issued and outstanding as of December 31, 2008 and 2007, respectively	92,386	132,092
Additional paid-in capital	107,882	98,157
Retained earnings	73,182	89,077
Accumulated other comprehensive loss	(254)	(2,826)
Total shareholders' equity	273,196	316,500
Total liabilities and shareholders' equity	<u>\$ 328,426</u>	<u>\$ 369,440</u>

The accompanying notes are an integral part of these consolidated financial statements

IXIA
Consolidated Statements of Income
(in thousands, except per share data)

	Year Ended December 31,		
	2008	2007	2006
Revenues:			
Products	\$ 146,802	\$ 148,226	\$ 155,388
Services	29,065	25,895	24,744
Total revenues	<u>175,867</u>	<u>174,121</u>	<u>180,132</u>
Costs and operating expenses: ⁽¹⁾			
Cost of revenues - products	32,411	32,724	29,437
Cost of revenues - amortization of purchased technology	4,778	5,196	4,705
Cost of revenues - services	4,475	3,870	2,681
Research and development	49,184	47,407	43,450
Sales and marketing	59,390	57,420	59,020
General and administrative	26,948	24,927	23,800
Amortization of intangible assets	886	1,912	1,745
Impairment of purchased technology and intangible assets	-	3,263	-
Total costs and operating expenses	<u>178,072</u>	<u>176,719</u>	<u>164,838</u>
(Loss) income from operations	(2,205)	(2,598)	15,294
Interest and other income, net	6,574	11,723	9,409
Other-than-temporary impairment on investments	<u>(20,243)</u>	<u>-</u>	<u>-</u>
(Loss) income before income taxes	(15,874)	9,125	24,703
Income tax expense	21	2,119	11,222
Net (loss) income	<u>\$ (15,895)</u>	<u>\$ 7,006</u>	<u>\$ 13,481</u>
(Loss) earnings per share:			
Basic	\$ (0.24)	\$ 0.10	\$ 0.20
Diluted	\$ (0.24)	\$ 0.10	\$ 0.20
Weighted average number of common and common equivalent shares outstanding:			
Basic	65,087	67,936	67,005
Diluted	65,087	69,386	68,792
⁽¹⁾ Stock-based compensation included in:			
Cost of revenues - products	\$ 513	\$ 519	\$ 590
Cost of revenues - services	195	197	224
Research and development	4,166	5,243	6,481
Sales and marketing	3,411	4,416	7,838
General and administrative	2,360	2,659	2,890

The accompanying notes are an integral part of these consolidated financial statements

IXIA
Consolidated Statements of Shareholders' Equity
(in thousands)

	<u>Common Stock</u>		<u>Additional</u>	<u>Retained</u>	<u>Accumulated</u>	
	<u>Shares</u>	<u>Amount</u>	<u>Paid-In</u>	<u>Earnings</u>	<u>Other</u>	<u>Total</u>
			<u>Capital</u>		<u>Comprehensive</u>	
					<u>Income (loss)</u>	
Balance as of December 31, 2005	66,580	\$126,792	\$ 68,098	\$ 68,590	\$ -	\$263,480
Net income				13,481		13,481
Shares issued pursuant to stock incentive plans and exercise of employee stock purchase plan options	771	5,621				5,621
Stock-based compensation			18,023			18,023
Stock award tax benefit			184			184
Balance as of December 31, 2006	67,351	132,413	86,305	82,071	-	300,789
Net income				7,006		7,006
Change in unrealized gains and losses on investments, net of tax					(2,844)	(2,844)
Cumulative translation adjustment					18	18
Comprehensive income						4,180
Shares issued pursuant to stock incentive plans and exercise of employee stock purchase plan options	1,739	8,870				8,870
Repurchase of shares pursuant to stock buyback program	(919)	(9,191)				(9,191)
Stock-based compensation			13,034			13,034
Stock award tax shortfall			(1,182)			(1,182)
Balance as of December 31, 2007	68,171	132,092	98,157	89,077	(2,826)	316,500
Net loss				(15,895)		(15,895)
Change in unrealized gains and losses on investments, net of tax					(1,680)	(1,680)
Reclassification adjustment for investment losses recognized in net loss, net of tax					4,191	4,191
Cumulative translation adjustment					61	61
Comprehensive loss						(13,323)
Shares issued pursuant to stock incentive plans and employee stock purchase plan options	1,029	3,897				3,897
Repurchase of shares pursuant to stock buyback programs	(5,809)	(43,603)				(43,603)
Stock-based compensation			10,645			10,645
Stock award tax shortfall			(920)			(920)
Balance as of December 31, 2008	<u>63,391</u>	<u>\$92,386</u>	<u>\$107,882</u>	<u>\$ 73,182</u>	<u>\$ (254)</u>	<u>\$273,196</u>

The accompanying notes are an integral part of these consolidated financial statements

IXIA
Consolidated Statements of Cash Flows
(in thousands)

	Year Ended December 31,		
	2008	2007	2006
Cash flows from operating activities:			
Net (loss) income	\$ (15,895)	\$ 7,006	\$ 13,481
Adjustments to reconcile net (loss) income to net cash provided by operating activities, net of effect of acquisitions:			
Depreciation	11,527	11,560	10,038
Amortization of purchased technology and intangible assets	5,664	7,108	6,450
Impairment on investments	20,243	-	-
Impairment of purchased technology and intangible assets	-	3,263	-
Stock-based compensation	10,645	13,034	18,023
Deferred income taxes	(2,455)	(1,478)	5,739
Tax (shortfall) benefit from stock award transactions	(920)	(1,182)	184
Excess tax benefits from stock-based compensation	(188)	(309)	(255)
Changes in operating assets and liabilities, net of effect of acquisitions:			
Accounts receivable, net	(1,596)	3,816	(4,656)
Inventories	(2,235)	(1,127)	(1,758)
Prepaid expenses and other current assets	(1,596)	797	(663)
Other assets	(1,599)	(468)	(172)
Accounts payable	2,255	279	(677)
Accrued expenses	(167)	2,146	2,168
Deferred revenues	(248)	1,367	(15,014)
Income taxes payable and other liabilities	900	(43)	1,023
Net cash provided by operating activities	<u>24,335</u>	<u>45,769</u>	<u>33,911</u>
Cash flows from investing activities:			
Purchases of property and equipment	(8,540)	(10,931)	(12,332)
Purchases of available-for-sale securities	-	(54,150)	(153,400)
Proceeds from available-for-sale securities	2,001	161,850	114,225
Purchases of held-to-maturity securities	(8,924)	(45,469)	(7,978)
Proceeds from held-to-maturity securities	37,104	30,564	39,944
Purchases of other intangible assets	(314)	(175)	(165)
Payments in connection with acquisitions	(2,245)	(3,198)	(7,274)
Net cash provided by (used in) investing activities	<u>19,082</u>	<u>78,491</u>	<u>(26,980)</u>
Cash flows from financing activities:			
Proceeds from exercise of stock options, warrants and employee stock purchase plan options	3,897	8,870	5,621
Repurchase of common stock	(43,603)	(9,191)	-
Excess tax benefits from stock-based compensation	188	309	255
Net cash (used in) provided by financing activities	<u>(39,518)</u>	<u>(12)</u>	<u>5,876</u>
Net increase in cash and cash equivalents	3,899	124,248	12,807
Cash and cash equivalents at beginning of year	<u>188,892</u>	<u>64,644</u>	<u>51,837</u>
Cash and cash equivalents at end of year	<u>\$ 192,791</u>	<u>\$ 188,892</u>	<u>\$ 64,644</u>
Supplemental disclosure of cash flow information:			
Cash paid during the year for:			
Income taxes	<u>\$ 5,443</u>	<u>\$ 4,724</u>	<u>\$ 4,291</u>

The accompanying notes are an integral part of these consolidated financial statements

IXIA
Notes to Consolidated Financial Statements

1. Business and Summary of Significant Accounting Policies

Business

We were incorporated on May 27, 1997 as a California corporation. We are a leading provider of test systems for IP-based infrastructure and services. Our hardware and software allow our customers to test and measure the performance, functionality, service quality and conformance of Internet Protocol (IP) equipment and networks, and the applications that run over them. Our solutions generate, capture, characterize and analyze high volumes of realistic network and application traffic, identifying problems, assessing performance, ensuring functionality and interoperability, and verifying conformance to industry specifications. We offer hardware platforms with interchangeable media interfaces, utilizing a common set of applications and Application Programming Interfaces (APIs) that allow our customers to create integrated, easy-to-use automated test environments. The networks that our systems analyze primarily include Ethernet networks operating at speeds of up to 10 gigabits per second that carry data traffic over optical fiber or electrical cable. We also offer applications that test and verify traditional Time-Division Multiplexing (TDM) voice-based networks and voice over IP technology, devices and systems. These applications also assess interoperability, assist in troubleshooting, allow service optimization and perform call traffic monitoring of video telephony. Customers also use our suite of software applications to test and verify web, Internet, security and business applications.

Use of Estimates

In the normal course of preparing financial statements in conformity with accounting principles generally accepted in the United States, management is required to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Consolidation

All subsidiaries are consolidated as they are 100% owned by us. All significant intercompany transactions and accounts are eliminated in consolidation.

Cash and Cash Equivalents

We consider all highly liquid investments with a maturity of three months or less at the date of purchase to be cash equivalents. Cash and cash equivalents are carried at cost, which approximates fair value. We generally place funds that are in excess of current needs in high credit quality instruments such as money market accounts. There are no restrictions on the use of cash and investments.

Fair Value of Financial Instruments

Our financial instruments, including cash and cash equivalents, accounts receivable, accounts payable and other liabilities are carried at cost, which approximates their fair values because of the short-term maturity of these instruments and the relative stability of interest rates.

We utilize foreign currency forward contracts to hedge certain accounts receivable amounts that are denominated in Japanese Yen. These contracts are used to reduce the risk associated with exchange rate movements, as gains and losses on these contracts are intended to offset exchange losses and gains on underlying exposures. Changes in the fair value of these forward contracts are recorded immediately in earnings. We do not enter into foreign exchange forward contracts for speculative or trading purposes. To date, net gains and losses on the above transactions have not been significant. As of December 31, 2008, we did not have any significant foreign currency forward contracts outstanding.

Investments in Marketable Securities

We determine the appropriate classification of investments in marketable securities at the time of purchase in accordance with Statement of Financial Accounting Standards ("SFAS") No. 115, "Accounting for Certain Investments in Debt and Equity Securities" ("SFAS 115"), and reevaluate such determination at each balance sheet date. Held-to-maturity securities are carried at amortized cost, which typically approximates fair value. Accretion and amortization of purchase discounts and premiums are included in interest and other income, net. Available-for-sale securities are stated at fair value. The net unrealized gains or losses on available-for-sale securities are reported as a separate component of accumulated other comprehensive income or loss, net of tax. The specific identification method is used to compute realized gains and losses on our marketable securities. Gross realized gains and gross realized losses on our marketable securities were not significant for the years ended December 31, 2008, 2007 and 2006.

As of December 31, 2008, our available-for-sale securities consisted of corporate debt securities and auction rate securities. As of December 31, 2007, our available-for-sale securities consisted of auction rate securities. We held no held-to-maturity securities as of December 31, 2008, and as of December 31, 2007, our held-to-maturity securities consisted of federal agencies and corporate debt securities. In light of the worsening economic climate and volatility in the financial markets, during the fourth quarter of 2008, we transferred our remaining investments in corporate debt securities issued by banks and financial institutions from held-to-maturity securities to available-for-sale securities. As a result of this transfer, we recorded a gross unrealized loss of \$332,000 through other comprehensive income during the fourth quarter of 2008.

We periodically review our marketable securities for impairment. If we conclude that any of our investments are impaired, we determine whether such impairment is "other-than-temporary" as defined under the FASB Staff Position 115-1/124-1, "The Meaning of Other-Than-Temporary Impairment and Its Application to Certain Investments" ("FSP 115-1/124-1"). Factors we consider to make such a determination include, among others, the severity of the impairment, the reason for the decline in value and the potential recovery period, and our intent and ability to hold an investment until a recovery occurs. If any impairment is considered "other-than-temporary," we write down the asset to its fair value and take a corresponding charge to earnings. During 2007, we recorded an unrealized temporary loss of \$4.7 million (pre-tax) related to our auction rate securities through other comprehensive income. During the fourth quarter of 2008, we recorded an unrealized other-than-temporary impairment charge of \$15.8 million (pre-tax) to earnings related to our auction rate securities, which included the reclassification of the unrealized temporary loss of \$4.7 million (pre-tax) recorded through other comprehensive income for the year ended December 31, 2007. In addition, during 2008, we recorded an other-than-temporary impairment charge of \$4.4 million to earnings related to our investments in bonds issued by Lehman Brothers Holdings, Inc. ("LBHI"). See Note 4 for additional information.

Accounts Receivable and Allowance for Doubtful Accounts

Trade accounts receivable are recorded at the invoiced amount and do not bear interest. The allowance for doubtful accounts is based on the best estimate of the amount of probable credit losses in existing accounts receivable. The allowance for doubtful accounts is determined based on historical write-off experience, current customer information and other relevant data. We review the allowance for doubtful accounts monthly. Past due balances of 60 days and over are reviewed individually for collectibility. Account balances are charged off against the allowance when management believes it is probable the receivable will not be recovered. We do not have any off-balance-sheet credit exposure related to our customers.

Inventories

Inventories are goods held for sale in the normal course of business. Inventories are stated at the lower of cost (first-in, first-out) or market. The inventory balance is segregated between raw materials, work in process ("WIP") and finished goods. Raw materials are low level components, many of which are purchased from vendors, WIP is partially assembled products and finished goods are products that are ready to be shipped to end customers. Consideration is given to inventory shipped and received near the end of a period and the transaction is recorded when transfer of title occurs. We regularly evaluate inventory for obsolescence and adjust to net realizable value based on inventory that is obsolete or in excess of current demand.

Property and Equipment

Property and equipment are stated at cost less accumulated depreciation. Depreciation of our computer software and equipment is computed using the straight-line method based upon the estimated useful lives of the applicable assets, ranging from two to five years. Leasehold improvements are amortized over the lesser of the lease term or the estimated useful lives of the improvements. Useful lives are evaluated regularly by management in order to determine recoverability in light of current technological conditions. Property and equipment also includes the cost of our products used for research and development and sales and marketing activities, including product demonstrations for potential customers. Repairs and maintenance are charged to expense as incurred while renewals and improvements are capitalized. Upon the sale or retirement of property and equipment, the accounts are relieved of the cost and the related accumulated depreciation, with any resulting gain or loss included in the statements of income.

Goodwill and Purchased Intangible Assets

We apply SFAS No. 142, "Goodwill and Other Intangible Assets" ("SFAS 142") to purchased intangible assets, which are carried at cost less accumulated amortization. Cost or purchase price is determined based on amounts paid to the seller (both in cash and the value of our stock), liabilities assumed and transaction costs. The value of intangible assets is determined using valuation techniques such as the discounted cash flow method. In the case of a purchase of a business, the purchase price is allocated to the various identifiable assets, including intangibles, based on their respective fair values, with any remaining amount being assigned to goodwill. In the case of an asset purchase, any excess purchase price is allocated ratably based on the respective fair values of the assets. Amortization of purchased technology is computed using the greater of (a) the ratio of current revenues to the total of current and anticipated future revenues or (b) the straight-line method over the remaining estimated economic life. Amortization of other intangible assets is computed using the straight-line method over the economic lives of the respective assets. The economic useful lives are determined based on comparison of similar technologies in the industry, historical experience and management expectations. Goodwill is carried at cost and is tested for impairment annually or whenever events or circumstances occur indicating that goodwill might be impaired in accordance with SFAS 142. Impairment losses are recorded to the extent that the carrying value of the goodwill exceeds the implied fair value of goodwill. Other intangible assets are tested for impairment as circumstances arise in accordance with SFAS No. 144, "Accounting for the Impairment or Disposal of Long-Lived Assets." An impairment loss is recorded to the extent that the carrying value of an intangible asset exceeds its fair value. During the year ended December 31, 2007, we recorded an impairment loss related to previously acquired purchased technology and certain other intangible assets (see

Note 6 for additional information). No such impairment was recorded during the year ended December 31, 2008.

Litigation

We are currently involved in certain legal proceedings. We accrue for losses when the loss is deemed probable and the liability can reasonably be estimated. Where a liability is probable and there is a range of estimated loss with no best estimate in the range, we record the minimum estimated liability related to the claim. As additional information becomes available, we assess the potential liability related to our pending litigation and revise our estimates. See Note 8 for additional information.

Product Warranty

We generally provide a 12-month initial standard warranty on our hardware products after product shipment and accrue for estimated future warranty costs at the time product revenue is recognized. All product warranty expenses are reflected within cost of sales in the accompanying consolidated statements of income. Accrued product warranty costs are included as a component of accrued expenses in the accompanying consolidated balance sheets.

Activity in the product warranty liability account for the years presented is as follows (in thousands):

	December 31, 2008	December 31, 2007	December 31, 2006
Balance at beginning of year	\$ 577	\$ 344	\$ 230
Current year provision	619	596	230
Expenditures	(263)	(363)	(116)
Balance at end of year	<u>\$ 933</u>	<u>\$ 577</u>	<u>\$ 344</u>

Revenue Recognition

Our revenues are principally derived from the sale and support of our test systems. Product revenues primarily consist of sales of our hardware and software products. Our service revenues primarily consist of the provision of post contract customer support and maintenance ("PCS") related to the initial free 12-month and separately purchased extended PCS contracts, and to our implied PCS obligations. Service revenues also include separately purchased extended hardware warranty support (generally offered for 12-month periods). PCS on our software products includes unspecified software upgrades and customer technical support services. In some instances our software products may be installed and operated independently from our hardware products. At other times, our software products are installed on and work with our hardware products to enhance the functionality of the overall test system. In addition, our chassis is generally shipped with our core operating system software installed, which is an integral part of the chassis' functionality. As our software is generally more than incidental to the sale of our test systems, we recognize revenue by applying the provisions of the American Institute of Certified Public Accountants ("AICPA") Statement of Position ("SOP") 97-2, "Software Revenue Recognition" as amended by SOP 98-9, "Software Revenue Recognition with Respect to Certain Arrangements" (collectively, "SOP 97-2").

Our test systems are generally fully functional at the time of shipment and do not require us to perform any significant production, modification, customization or installation after shipment. As such, revenue from hardware and software product sales is recognized upon shipment provided that (i) an arrangement exists, which is typically in the form of a customer purchase order; (ii) delivery has occurred (i.e., transfer of title (as applicable) and risk of loss to the customer); (iii) the sales price is fixed or determinable; and (iv) collectibility is deemed probable.

When a sale involves multiple elements, or multiple products, and we have vendor-specific objective evidence ("VSOE") of fair value for each element in the arrangement, we recognize revenue based on the relative fair value of all elements within the arrangement. We determine VSOE based on sales prices charged to customers when the same element is sold separately or based upon renewal pricing for PCS. Many of our products, such as our software and chassis products, typically include 12 months of free PCS and are not sold separately. Accordingly, we are unable to establish VSOE for these products.

In cases where VSOE only exists for the undelivered elements such as PCS, we apply the residual method to recognize revenue. Under the residual method, the total arrangement fee is allocated first to the undelivered elements, typically PCS, based on their VSOE, and the residual portion of the fee is allocated to the delivered elements, typically our hardware and software products, and is recognized as revenue assuming all other revenue recognition criteria as described above have been met.

If VSOE cannot be determined for all undelivered elements of an arrangement, we defer revenue until the earlier of (i) the delivery of all elements or (ii) the establishment of VSOE for all undelivered elements, provided that if the only undelivered element is PCS or a service, the total fee of the arrangement is recognized as revenue over the PCS or service term.

Services revenues from our initial and separately purchased extended contractual PCS arrangements (generally offered for 12-month periods) are recognized ratably over the contractual coverage period. In addition, for implied PCS obligations we defer revenues from product sales and allocate these amounts to PCS revenues to account for the circumstances in which we provide PCS after the expiration of the customer's contractual PCS period. Deferred revenues for these implied PCS obligations are recognized ratably over the implied PCS period, which is typically based on the expected economic life of our software products of four years. To the extent we determine that implied PCS is no longer being provided after the expiration of the customer's contractual PCS period, the remaining deferred revenue balance related to the implied PCS obligation is reversed and recognized as revenue in the period of cessation of the implied PCS obligation. The implied PCS obligation for our software products ceases upon (i) the license management of our software upgrades and (ii) our determination not to provide PCS after the expiration of the contractual PCS period. Our license management system locks a software license to a specific computer or Ixia hardware chassis on which our software resides. The system then manages and controls the provision of software upgrades to ensure that the upgrades are only provided to customers that are entitled to receive such upgrades during an initial or extended PCS period. For software products that are not controlled under a license management system and for certain customers where we provide implied PCS outside of the contractual PCS period, we allocate and defer revenue for these implied PCS obligations and recognize this revenue ratably over the implied PCS periods as described above. For the years ended December 31, 2008, 2007 and 2006, services revenues related to our implied PCS obligations approximated \$4.2 million, \$3.4 million and \$8.4 million, respectively. For the years ended December 31, 2008, 2007 and 2006, \$0, \$0 and \$25.9 million, respectively, of deferred revenue relating to implied PCS was reversed and recognized as product revenues as a result of the license management of certain products and our determination not to provide PCS after the expiration of the contractual PCS period. Future reversals of implied PCS deferred revenue are not expected to be significant over the near term as a result of the future license management of additional products and our determination not to provide PCS to certain customers after the expiration of the contractual PCS period.

Revenues from our separately purchased extended hardware warranty arrangements are recognized ratably over the contractual coverage period.

We use distributors to complement our direct sales and marketing efforts in certain international markets. Due to the broad range of features and options available with our hardware and software products, distributors generally do not stock our products and typically place orders with us after receiving an order from an end customer. These distributors receive business terms of sale generally similar to those received by our other customers.

Cost of Revenues

Our cost of revenues related to the sale of our hardware and software products includes materials, payments to third party contract manufacturers, royalties, and salaries and other expenses related to our manufacturing, operations, technical support and professional service personnel. We outsource the majority of our manufacturing operations, and we conduct supply chain management, quality control, logistics, shipping and some final assembly and testing at our facility in Calabasas, California. Accordingly, a significant portion of our cost of revenues related to our products consists of payments to our contract manufacturers. Cost of revenues related to the provision of services includes salaries and other expenses associated with customer and technical support services, professional services and the warranty cost of hardware that is replaced or repaired during the warranty coverage period. Cost of revenues also includes the amortization of purchased technology in connection with our acquisitions of certain product lines and technologies.

Research and Development

Research and development expenses consist primarily of salaries and other personnel costs related to the design, development, testing and enhancements of our products. Costs related to research and development activities, including those incurred to establish the technological feasibility of a software product, are expensed as incurred. If technological feasibility is established, all development costs incurred until general product release are subject to capitalization. To date, the establishment of technological feasibility of our products and general release have substantially coincided. As a result, we have not capitalized any development costs.

Software Developed for Internal Use

We capitalize costs of software, consulting services, hardware and payroll-related costs incurred to purchase or develop internal-use software. We expense costs incurred during preliminary project assessment, research and development, re-engineering, training and application maintenance phases. To date, internal costs incurred to develop software for internal use have not been significant.

Advertising

Advertising costs are expensed as incurred. Advertising costs were \$1.0 million, \$912,000 and \$822,000 for the years ended December 31, 2008, 2007 and 2006, respectively.

Stock-Based Compensation

Effective January 1, 2006, we adopted SFAS No. 123 (revised 2004), "Share-Based Payment" ("SFAS 123R"), which requires the measurement and recognition of compensation expense for all share-based payment awards made to employees and directors including stock options, restricted stock units and employee stock purchase rights based on the estimated fair values for accounting purposes on the grant date.

SFAS 123R requires companies to estimate the fair value of share-based payment awards on the date of grant using an option-pricing model. We use the Black-Scholes option pricing model to estimate the fair value for accounting purposes of share-based awards, which meets the requirement of SFAS 123R. The determination of the fair value of share-based awards utilizing the Black-Scholes model is affected by our stock price and a number of assumptions, including expected volatility, expected life and risk-free interest rate. The expected life and expected volatility are estimated based on historical and other data trended into the future. The risk-free interest rate assumption is based on observed interest rates appropriate for the terms of our share-based awards. Stock-based compensation expense recognized in our consolidated financial statements is based on awards that are ultimately expected to vest. The amount of stock-based compensation expense is reduced for estimated forfeitures based on historical experience as well as future expectations. Forfeitures are required to be estimated at the time of grant and revised, if necessary, in subsequent periods if estimated and actual forfeitures differ from these initial estimates. We will evaluate the assumptions used to value share-based awards on a periodic basis. If factors change and we employ different assumptions, stock-based compensation expense may differ significantly from what we have recorded in the past. If there are any modifications or cancellations of the underlying unvested share-based awards, we may be required to accelerate, increase or cancel any remaining unearned stock-based compensation expense. Consistent with our past practice, we attribute the value of stock-based compensation to expense based on the graded, or accelerated multiple-option, approach.

Under SFAS 123R, actual tax benefits recognized in excess of tax benefits previously recognized, if any, are reported as a financing cash inflow. Stock-based compensation expense recognized under SFAS 123R for the years ended December 31, 2008, 2007, and 2006 were \$10.6 million, \$13.0 million and \$18.0 million, respectively. The balance of gross unearned stock-based compensation to be expensed in the periods 2009 through 2012 related to unvested share-based awards as of December 31, 2008 was approximately \$18.5 million.

Income Taxes

We account for income taxes using the liability method. Deferred taxes are determined based on the differences between the financial statement and tax bases of assets and liabilities, using enacted tax rates in effect for the year in which the differences are expected to reverse. Valuation allowances are established when necessary to reduce deferred tax assets to the amounts expected to be realized.

Effective January 1, 2007, we adopted FIN No. 48, "Accounting for Uncertainty in Income Taxes – An interpretation of FASB Statement No. 109" ("FIN 48"). Under FIN 48, we recognize, in our consolidated financial statements, the impact of tax positions that are more likely than not to be sustained upon examination based on the technical merits of the positions.

Earnings Per Share

Basic (loss) earnings per share is computed using the weighted-average number of common shares outstanding during the period. Diluted earnings per share is computed using the weighted-average number of common shares and dilutive potential common shares outstanding during the period. Dilutive potential common shares primarily consist of employee stock options.

Foreign Currency Translation

Assets and liabilities of non-U.S. subsidiaries that operate in a local currency environment are translated to U.S. Dollars at exchange rates in effect at the balance sheet date, with the resulting translation adjustments included as a separate component in accumulated other comprehensive income (loss), which have not been significant to date. Income and expense accounts are translated at average exchange rates during the year. Where the U.S. Dollar is the functional currency, certain balance sheet and income statement accounts are remeasured at historical exchange rates and translation adjustments from the remeasurement of the local currency amounts to U.S. Dollars are included in interest and other income, net. Gains and losses resulting from foreign currency transactions, the amounts of which have not been significant to date, are included in interest and other income, net.

Comprehensive Income

We have adopted the provisions of SFAS No. 130, "Reporting Comprehensive Income" ("SFAS 130"). SFAS 130 establishes standards for reporting comprehensive income and its components in financial statements. Comprehensive income, as defined, includes all changes in equity (net assets) during a period from non-owner sources. Accumulated other comprehensive income (loss) includes foreign currency translation adjustments and unrealized gains and losses on investments.

Segments

We have adopted the provisions of SFAS No. 131, "Disclosures about Segments of an Enterprise and Related Information" ("SFAS 131"). SFAS 131 establishes standards for the way companies report information about operating segments in annual financial statements. It also establishes standards for related disclosures about products and services, geographic areas and major customers. We have determined that we did not have any separately reportable business segments as of, and for the years ended, December 31, 2008, 2007 and 2006.

Reclassifications and Presentation

Certain prior year amounts have been reclassified to conform to the current year presentation.

Recent Accounting Pronouncements

In June 2008, the Financial Accounting Standards Board ("FASB") issued FSP EITF 03-6-1, "Determining Whether Instruments Granted in Share-Based Payment Transactions Are Participating Securities." This FSP provides that unvested share-based payment awards that contain non-forfeitable rights to dividends or dividend equivalents (whether paid or unpaid) are participating securities and shall be included in the computation of earnings per share pursuant to the two-class method. The FSP is effective for financial statements issued for interim periods and fiscal years beginning after December 15, 2008. Upon adoption, we are required to retrospectively adjust our earnings per share data (including any amounts related to interim periods, summaries of earnings and selected financial data) to conform with the provisions in this FSP. We are currently evaluating the impact, if any, that the adoption of this FSP will have on our earnings per share amounts.

In April 2008, the FASB issued FSP No. FAS 142-3, "Determination of the Useful Life of Intangible Assets" ("FSP 142-3"). This FSP amends the factors that should be considered in developing renewal or extension assumptions used to determine the useful life of a recognized intangible asset under FASB No. 142, "Goodwill and Other Intangible Assets" ("SFAS 142"). The intent of this FSP is to improve the consistency between the useful life of a recognized intangible asset under SFAS 142, the period of expected cash flows used to measure the fair value of the asset under FASB Statement No. 141R, and other U.S. generally accepted accounting principles ("GAAP"). This FSP is effective for financial statements issued for interim periods and fiscal years beginning after December 15, 2008. FSP 142-3 will have an impact on our accounting for business combinations completed after January 1, 2009.

In December 2007, the FASB issued SFAS No. 141R, "Business Combinations" ("SFAS 141R"). SFAS 141R establishes principles and requirements for how the acquirer of a business recognizes and measures in its financial statements the identifiable assets acquired, the liabilities assumed and any noncontrolling interest in the acquiree. SFAS 141R also provides guidance for recognizing and measuring the goodwill acquired in the business combination and determines what information to disclose to enable users of the financial statements to evaluate the nature and financial effects of the business combination. SFAS 141R is effective for financial statements issued for fiscal years beginning after December 15, 2008. Early adoption of this standard is not permitted. SFAS 141R requires prospective application for all acquisitions after the date of adoption. We expect SFAS 141R to have an impact on our consolidated financial statements when effective, but the timing, nature and magnitude of the specific effects will depend upon the nature, terms and size of the acquisitions we consummate after the effective date.

In December 2007, the FASB issued SFAS No. 160, "Noncontrolling Interests in Consolidated Financial Statements, an amendment of ARB No. 51" ("SFAS 160"). SFAS 160 establishes accounting and reporting standards for ownership interests in subsidiaries held by parties other than the parent, the amount of consolidated net income attributable to the parent and to the noncontrolling interest, changes in a parent's ownership interest, and the valuation of retained noncontrolling equity investments when a subsidiary is deconsolidated. SFAS 160 also establishes disclosure requirements that clearly identify and distinguish between the interests of the parent and the interests of the noncontrolling owners. This statement is effective for us beginning January 1, 2009. We believe that the adoption of SFAS 160 will not have a significant impact on our consolidated financial position, results of operations or cash flows.

On January 1, 2008, we adopted certain provisions of SFAS No. 157, "Fair Value Measurements" ("SFAS 157"), which defines fair value, establishes a framework for measuring fair value in GAAP, and expands disclosures about fair value measurements. The provisions of SFAS 157 relate to financial assets and liabilities as well as other assets and liabilities carried at fair value on a recurring basis and liabilities and did not have a material impact on our consolidated financial position, results of operations or cash flows. The provisions of SFAS 157 related to nonfinancial assets and liabilities will be effective for us on January 1, 2009 in accordance with FSP FAS 157-2, "Effective Date of FASB Statement No. 157" ("FSP FAS 157-2") and will be applied prospectively. We do not expect that the adoption of the remaining aspects of SFAS 157 to have a material impact on our consolidated financial position, results of operations or cash flows. See Note 4 for disclosures required by this new pronouncement.

2. Concentrations

Credit Risk

Financial instruments that subject us to concentrations of credit risk consist primarily of cash and cash equivalents, investments and trade accounts receivable. We maintain our cash and cash equivalents with reputable financial institutions, and at times, cash balances may be in excess of FDIC insurance limits. We extend differing levels of credit to customers, do not generally require collateral, and maintain reserves for potential credit losses based upon the expected collectibility of accounts receivable.

The continuing adverse conditions in the financial and credit markets have reduced our ability to liquidate our auction rate securities that we have classified as long-term investments in marketable securities on our balance sheet. Of our total cash and investments balance of \$206.3 million as of December 31, 2008, \$3.2 million (\$19.0 million at par value, or cost) consists of these illiquid auction rate securities. See Note 4 for additional information.

Significant Customer

For the years ended December 31, 2008, 2007 and 2006, only one customer comprised more than 10% of total revenues as follows (in thousands, except percentages):

	Year Ended December 31,		
	2008	2007	2006
Amount of total revenues	\$ 36,857	\$ 41,655	\$ 46,280
As a percentage of total revenues	21.0%	23.9%	25.7%

As of December 31, 2008 and 2007, we had receivable balances from the customer approximating 13.9% and 12.6%, respectively, of total accounts receivable.

International Data

For the years ended December 31, 2008, 2007 and 2006, total revenues from international product shipments consisted of the following (in thousands, except percentages):

	Year Ended December 31,		
	2008	2007	2006
Amount of total revenues	\$ 63,045	\$ 60,946	\$ 57,275
As a percentage of total revenues	35.8%	35.0%	31.8%

Long-lived assets are primarily located in the United States. As of December 31, 2008, approximately \$8.0 million, or 15.4% of our total long-lived assets, were located at international locations. As of December 31, 2007, approximately \$8.5 million, or 9.1% of our total long-lived assets, were located at international locations. Long-lived assets located at international locations consisted primarily of fixed assets.

Sources of Supply

We outsource the manufacture, assembly and testing of printed circuit board assemblies, certain interface cards and certain chassis to a limited number of third party contract manufacturers and assembly companies. We cannot be certain that we will be able to effectively manage or retain our contract manufacturers, or that these contract manufacturers will continue to operate as going concerns or to meet our future requirements for timely delivery of products of sufficient quality and quantity. We and our contract manufacturers currently buy a number of key components of our products from a limited number of suppliers, which are manufactured by a limited number of companies. Although we believe that other contract manufacturers and suppliers could provide similar services and components on comparable terms, a change in one of our key contract manufacturers or suppliers could cause a delay in manufacturing, additional cost inefficiencies and a possible loss of sales, which could adversely affect our consolidated operating results.

In January 2009, we entered into an agreement with Plexus Services Corp ("Plexus"), a major electronic manufacturing services company, to improve our manufacturing process and supply chain management. The term of the agreement is for five years and under the agreement, Plexus will manufacture and manage our supply chain for many of our chassis and interface cards. A significant portion of our manufactured products should be fully transitioned to Plexus by the end of 2009.

3. Selected Balance Sheet Data

Accounts Receivable, Net

Accounts receivable, net consisted of the following (in thousands):

	December 31, 2008	December 31, 2007
Trade accounts receivable	\$ 34,765	\$ 33,019
Allowance for doubtful accounts	(764)	(614)
	<u>\$ 34,001</u>	<u>\$ 32,405</u>

Activity in the allowance for doubtful accounts during the years presented is as follows (in thousands):

	December 31, 2008	December 31, 2007	December 31, 2006
Balance at beginning of year	\$ 614	\$ 1,174	\$ 854
Charged to cost and expenses	300	300	335
Reversal of cost and expenses	-	(60)	-
Deductions	(150)	(800)	(15)
Balance at end of year	<u>\$ 764</u>	<u>\$ 614</u>	<u>\$ 1,174</u>

Investments in Marketable Securities

Investments in marketable securities as of December 31, 2008 consisted of the following (in thousands):

	Amorized Cost	Fair Value
Available-for-sale – short-term:		
Corporate debt securities	\$ 10,182	\$ 9,850
Available-for-sale – long-term:		
Auction rate securities	3,211	3,211
Corporate debt securities	<u>446</u>	<u>446</u>
	<u>3,657</u>	<u>3,657</u>
	<u>\$ 13,839</u>	<u>\$ 13,507</u>

During the latter half of 2007, certain of our auction rate securities failed to auction due to sell orders exceeding buy orders. Of our total cash and investments balance of \$206.3 million as of December 31, 2008, \$3.2 million (\$19.0 million at par value, or cost) consists of illiquid auction rate securities. During the fourth quarter of 2008, Ambac Assurance Corporation ("Ambac") exercised a put option that effectively converted our auction rate debt securities with a par value of \$15.0 million to Ambac auction market preferred stock ("AMPS"). The AMPS is not registered; and provides holders with when, and if declared, noncumulative dividends and a liquidation preference in the event of a liquidation or dissolution of Ambac provided there are available funds to be distributed after creditor obligations have been met. The AMPS do not have a conversion feature, mandatory redemption option or maturity date. The remaining balance of our auction rate securities with a par value of \$4.0 million was issued by a trust created by a bank (the "Trust") and matures in December 2017. The Trust is collateralized by a bank deposit note and includes a pool of credit default swaps that were sold by the Trust, which exposes the collateral to claims in the event of default of any of the related underlying bonds. In addition, during the fourth quarter of 2008, the credit ratings of our auction rate securities issued by Ambac and the Trust were significantly downgraded to as low as Ba1 (Moody's Investor Service) and BBB (Standard & Poor's), respectively. In light of the above and impact of the deepening financial crisis on banks and financial institutions, we believe that our auction rate security investments are other-than-temporarily impaired as it is probable that we will not collect the original principal amounts and the monthly interest or dividend payments. Accordingly, during the fourth quarter of 2008, we recorded an unrealized other-than-temporary impairment charge of \$15.8 million (pre-tax) to earnings related to our auction rate securities, which included the reclassification of the unrealized temporary loss of \$4.7 million (pre-tax) recorded through other comprehensive income for the year ended December 31, 2007.

In addition to our auction rate securities, we hold investments in corporate debt securities that could be subject to default by the issuer or could suffer declines in fair value that become other-than-temporary. We currently hold bonds issued by Lehman Brothers Holdings, Inc. ("LBHI") with a face value of \$5.0 million and maturity date in July 2010. In September 2008, LBHI filed for bankruptcy. As a result, the credit rating of our LBHI bonds was significantly downgraded and LBHI ceased making interest payments on the bonds. We believe that our investment in the LBHI bonds is other-than-temporarily impaired as it is probable that we will not collect the total interest and principal amounts due according to the contractual terms of the bonds. As of December 31, 2008, the estimated fair value of our LBHI bonds was determined to be \$446,000. For the year ended December 31, 2008, we recorded pre-tax other-than-temporary impairment charges of \$4.4 million (i.e., the difference between our then carrying value and estimated fair value of our LBHI bonds) to earnings.

It is possible that we could recognize future impairment charges on our auction rate securities, LBHI bonds or other corporate debt securities we currently own if future events, new information or the passage of time cause us to determine that a decline in our carrying value is other-than-temporary. We will continue to review and analyze these securities each reporting period.

In light of the worsening economic climate and volatility in the financial markets, during the fourth quarter of 2008, we transferred our remaining investments in corporate debt securities issued by banks and financial institutions from held-to-maturity securities to available-for-sale securities, and currently intend to dispose of these securities by December 31, 2009. As a result of this transfer, we recorded a gross unrealized loss of \$332,000 through other comprehensive income during the fourth quarter of 2008. All of our corporate debt securities contractually mature in 2010.

Investments in marketable securities as of December 31, 2007 consisted of the following (in thousands):

	Amortized Cost	Fair Value
Available-for-sale - short-term:		
Auction rate securities	\$ 2,001	\$ 2,001
Held-to-maturity - maturities of less than one year:		
Government agency debt securities	<u>2,998</u>	<u>2,984</u>
	<u>4,999</u>	<u>4,985</u>
Available-for-sale - long-term:		
Auction rate securities	14,345	14,345
Held-to-maturity - maturities of one to five years:		
Government agency debt securities	25,058	25,220
Corporate debt securities	<u>15,206</u>	<u>15,234</u>
	<u>54,609</u>	<u>54,799</u>
	<u>\$ 59,608</u>	<u>\$ 59,784</u>

Inventories

Inventories consisted of the following (in thousands):

	December 31, 2008	December 31, 2007
Raw materials	\$ 1,987	\$ 2,276
Work in process	4,932	6,680
Finished goods	<u>8,047</u>	<u>3,775</u>
	<u>\$ 14,966</u>	<u>\$ 12,731</u>

Property and Equipment, Net

Property and equipment, net consisted of the following (dollars in thousands):

	<u>Useful Life</u> (in years)	<u>December 31,</u> <u>2008</u>	<u>December 31,</u> <u>2007</u>
Computer equipment	3	\$ 8,580	\$ 7,701
Computer software	3-5	8,601	7,652
Demonstration equipment	2	12,592	13,196
Development equipment	5	15,466	13,404
Furniture and other equipment	5	15,216	14,271
Leasehold improvements	5-10	<u>4,255</u>	<u>3,556</u>
		64,710	59,780
Accumulated depreciation		<u>(46,204)</u>	<u>(38,347)</u>
		<u>\$ 18,506</u>	<u>\$ 21,433</u>

Accrued Expenses

Accrued expenses consisted of the following (in thousands):

	<u>December 31,</u> <u>2008</u>	<u>December 31,</u> <u>2007</u>
Accrued vacation	\$ 3,797	\$ 2,981
Accrued payroll	2,682	4,216
Accrued bonuses	2,509	2,319
Due to third parties for technology and certain assets	1,796	2,377
Accrued commissions	1,524	1,566
Accrued legal and professional fees	1,251	1,033
Accrued warranty	933	577
Employee stock purchase plan payroll deductions	687	545
Accrued travel	479	642
Sales tax payable	444	221
Accrued property taxes	367	339
Other	<u>2,354</u>	<u>2,624</u>
	<u>\$ 18,823</u>	<u>\$ 19,440</u>

4. Fair Value Measurements

On January 1, 2008, we adopted Statement of Financial Accounting Standards No. 157, "Fair Value Measurements" ("SFAS 157"). In February 2008, the FASB issued Staff Position No. 157-2, "Effective Date of FASB Statement No. 157" ("FSP 157-2"), which delayed the effective date of SFAS 157 for all of our nonfinancial assets and liabilities until January 1, 2009, except those that are recognized or disclosed at fair value in the financial statements on a recurring basis. SFAS 157, among other things, defines fair value,

establishes a consistent framework for measuring fair value and expands disclosure for each major asset and liability category measured at fair value on either a recurring or nonrecurring basis. SFAS 157 clarifies that fair value is an exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or liability. As a basis for considering such assumptions, SFAS 157 establishes a three-tier fair value hierarchy, which prioritizes the inputs used in measuring fair value as follows:

- Level 1. Observable inputs such as quoted prices in active markets;
- Level 2. Inputs, other than the quoted prices in active markets, that are observable either directly or indirectly; and
- Level 3. Unobservable inputs in which there is little or no market data, which require the reporting entity to develop its own assumptions.

Financial assets carried at fair value as of December 31, 2008 are classified in the table below in one of the three categories described above (in thousands):

	Fair Value December 31, 2008	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Observable Inputs (Level 2)	Other Significant Unobservable Inputs (Level 3)
Cash equivalents:				
U.S. Treasury-based money market funds	\$ 185,858	\$ 185,858	\$ —	\$ —
Short-term investments:				
Corporate debt securities ⁽¹⁾	9,850	—	9,850	—
Long-term investments:				
Corporate debt securities ⁽¹⁾	446	—	446	—
Auction rate securities ⁽²⁾	3,211	—	—	3,211
Total financial assets	<u>\$ 199,365</u>	<u>\$ 185,858</u>	<u>\$ 10,296</u>	<u>\$ 3,211</u>

(1) To estimate the fair value of our corporate debt securities, we use the average of three indications of value, consisting of the estimated fair value per our investment brokerage/custodial statement and two non-binding market quotes.

(2) Given the disruption in the auction process described in Note 3, there is no longer an actively quoted market price for these securities. Accordingly, we utilized a model to estimate the fair value of these auction rate securities based on, among other items: (i) the underlying structure of each security; (ii) the present value of future principal, interest and/or dividend payments discounted at rates considered to reflect current market conditions; (iii) consideration of the probabilities of default, auction failure, or repurchase at par for each period; and (iv) estimates of the recovery rates in the event of default for each security. These estimated fair values could change significantly based on future market conditions.

The following table summarizes the activity for those financial assets where fair value measurements are estimated utilizing Level 3 inputs (in thousands):

	Investments in Marketable Securities (Non-current)
Balance at December 31, 2007	\$ 14,345
Realized loss included in earnings	(11,134)
Balance at December 31, 2008	<u>\$ 3,211</u>
Additional loss included in earnings due to reclassification from other comprehensive income for securities still held at December 31, 2008	<u>\$ (4,655)</u>

During the fourth quarter of 2008, we recorded an unrealized other-than-temporary impairment charge of \$15.8 million (pre-tax) to earnings related to our auction rate securities (Level 3), which included the reclassification of the unrealized temporary loss of \$4.7 million (pre-tax) recorded through other comprehensive income for the year ended December 31, 2007. The fair value of our investments in auction rate securities may be adversely impacted by, among other events: (i) a further deterioration in market conditions; (ii) further declines in the credit quality of our auction rate securities or of the issuers of our auction rate securities; or (iii) a cessation of dividend payments or default on interest or principal payments by the issuer of the securities. Should such an event occur, we may need to record additional unrealized losses related to these securities. For the year ended December 31, 2008, we also recorded pre-tax other-than-temporary impairment charges of \$4.4 million (i.e., the difference between our then carrying value and estimated fair value of our LBHI bonds) to earnings. It is possible that we could recognize future impairment charges on our LBHI bonds or other corporate debt securities we currently own if future events, new information or the passage of time cause us to determine that a decline in our carrying value is other-than-temporary. See Note 3 for additional information.

5. Acquisitions

In February 2007, we acquired the rights to certain wireless technology from a privately-held company for an estimated purchase price of \$2.4 million. As of December 31, 2008, we have paid approximately \$590,000 related to this acquisition and expect to pay the balance over the next 12 months. We accounted for this acquisition under the purchase method of accounting and allocated the purchase price to the net tangible and amortizable intangible assets acquired based on their estimated fair values. The acquired assets did not constitute a business and as such, no goodwill was recorded on the asset purchase.

Acquisition of Test Business from Dilithium Networks

In January 2006, we completed the acquisition of the mobile video and multimedia test business ("Test Business") of privately-held Dilithium Networks. The results of the acquired Test Business have been included in the consolidated financial statements since the acquisition date.

The Test Business purchase price of \$5.2 million included \$4.9 million in cash and approximately \$300,000 in legal and other acquisition costs. The following table summarizes the allocation of the purchase price based on the estimated fair values of the assets acquired and liabilities assumed at the date of acquisition (in thousands):

Intangible assets	\$ 2,430
Goodwill	<u>3,260</u>
Total assets acquired	5,690
Current liabilities assumed	<u>(477)</u>
Net assets acquired	<u>\$ 5,213</u>

Of the \$2.4 million of acquired intangible assets, \$1.0 million was assigned to acquired technology, \$1.2 million was assigned to customer contracts and relationships, and approximately \$200,000 was assigned to other intangible assets, including a covenant not to compete. The \$3.3 million of goodwill is expected to be deductible for income tax purposes.

In the second quarter of 2007, we recognized an impairment charge of \$1.8 million consisting of \$700,000 of purchased technology and \$1.1 million of certain other intangible assets related to the Test Business. See Note 6 for additional information.

Acquisition of Certain Assets from Bell Canada

In June 2006, we completed the acquisition of certain technology from Bell Canada ("Test Tools"). Included with the acquired Test Tools are certain intellectual property rights and pending patents, and we also entered into a services agreement with Bell Canada for the use of certain Bell Canada employees to assist us with market development activities related to the Test Tools. The purchase price for the Test Tools asset acquisition was \$3.6 million, of which the remaining \$500,000 was paid in 2008. We accounted for the Test Tools acquisition under the purchase method of accounting and allocated the purchase price to the net tangible and intangible assets acquired based on their estimated fair values.

6. Goodwill and Other Intangible Assets

The following table presents 2008 details of our total purchased intangible assets (in thousands):

	Gross	Accumulated Amortization	Net
Goodwill	<u>\$ 16,728</u>	<u>\$ -</u>	<u>\$ 16,728</u>
Other intangible assets:			
Technology	\$ 35,633	\$ (26,341)	\$ 9,292
Non-compete	937	(937)	-
Trademark	676	(526)	150
Workforce	395	(395)	-
Customer relationships	1,511	(1,511)	-
Other	<u>3,072</u>	<u>(1,922)</u>	<u>1,150</u>
	<u>\$ 42,224</u>	<u>\$ (31,632)</u>	<u>\$ 10,592</u>

The following table presents 2007 details of our total purchased intangible assets (in thousands):

	Gross	Accumulated Amortization	Net
Goodwill	\$ 16,728	\$ -	\$ 16,728
Other intangible assets:			
Technology	\$ 34,094	\$ (21,021)	\$ 13,073
Non-compete	937	(929)	8
Trademark	676	(426)	250
Workforce	395	(395)	-
Customer relationships	1,511	(1,498)	13
Other	2,502	(1,699)	803
	<u>\$ 40,115</u>	<u>\$ (25,968)</u>	<u>\$ 14,147</u>

In 2007, we recognized an impairment charge of \$1.5 million consisting of \$746,000 of purchased technology and \$765,000 of certain other intangible assets related to the wireless LAN testing tools acquired as part of Communication Machinery Corporation in July 2005. Also, in 2007, we recognized an impairment charge of \$1.8 million consisting of \$700,000 of purchased technology and \$1.1 million of certain other intangible assets related to the acquisition of the mobile video test product line from Dillithium Networks in January 2006 (see Note 5). The impairment charges resulted from lower than expected current and projected operating profits for the applicable products and our decision to curtail sales and development efforts related to these products. Under SFAS 144, we determined that the future expected undiscounted cash flows were less than the carrying value of the affected identifiable intangible assets, which indicated that an impairment existed. To measure the impairment, we used the discounted cash flow approach to reduce the carrying value of the affected assets to fair value, which resulted in the \$3.3 million impairment of the above noted purchased technology and other identifiable intangible assets.

The estimated future amortization expense of purchased intangible assets as of December 31, 2008 is as follows (in thousands):

2009	\$ 5,185
2010	3,473
2011	1,090
2012	450
2013	194
Thereafter	<u>200</u>
	<u>\$ 10,592</u>

7. Income Taxes

The components of (loss) income before income taxes were (in thousands):

	Year Ended December 31,		
	2008	2007	2006
U.S.	\$ (19,992)	\$ 5,761	\$ 24,673
Foreign	<u>4,118</u>	<u>3,364</u>	<u>30</u>
	<u>\$ (15,874)</u>	<u>\$ 9,125</u>	<u>\$ 24,703</u>

Income tax expense consisted of the following (in thousands):

	Year Ended December 31,		
	2008	2007	2006
Current:			
Federal	\$ 856	\$ 3,123	\$ 4,672
State	594	(268)	503
Foreign	1,025	741	309
Deferred:			
Federal	(1,171)	(543)	4,785
State	(1,418)	(1,483)	1,212
Foreign	<u>135</u>	<u>549</u>	<u>(259)</u>
Income tax expense	<u>\$ 21</u>	<u>\$ 2,119</u>	<u>\$ 11,222</u>

The net effective income tax rate differed from the federal statutory income tax rate as follows (dollars in thousands):

	Year Ended December 31,		
	2008	2007	2006
Federal statutory expense	\$ (5,556)	\$ 3,194	\$ 8,646
State taxes, net of federal benefit	(536)	(1,138)	1,242
Research and development credits	(813)	(625)	(969)
Stock-based compensation	543	809	2,644
Domestic production activities deduction	(138)	(276)	(249)
Foreign tax rate differential	(282)	113	41
Other	(282)	42	(133)
Valuation allowance	<u>7,085</u>	<u>-</u>	<u>-</u>
Income tax expense	<u>\$ 21</u>	<u>\$ 2,119</u>	<u>\$ 11,222</u>
Net effective income tax rate	(0.1)%	23.2%	45.4%

The primary components of temporary differences that gave rise to deferred taxes were as follows (in thousands):

	December 31, 2008	December 31, 2007
Deferred tax assets:		
Allowance for doubtful accounts	\$ 297	\$ 239
Research and development credit carryforward	5,380	4,999
Deferred revenue	4,168	4,500
Stock-based compensation	6,385	5,074
Inventory adjustments	1,876	1,790
Net operating loss carryforward	445	509
Unrealized loss on investments	8,004	1,811
Accrued liabilities and other	<u>2,713</u>	<u>1,873</u>
	29,268	20,795
Valuation allowance	<u>(8,072)</u>	<u>-</u>
	21,196	20,795
Deferred tax liabilities:		
Depreciation and amortization	<u>(1,396)</u>	<u>(1,639)</u>
Net deferred tax assets	<u>\$ 19,800</u>	<u>\$ 19,156</u>

In assessing the realizability of deferred income tax assets, SFAS No. 109, Accounting for Income Taxes, establishes a more likely than not standard. If it is determined that it is more likely than not that deferred income tax assets will not be realized, a valuation allowance must be established against the deferred income tax assets. The ultimate realization of the assets is dependent on the generation of future taxable income during the periods in which the associated temporary differences become deductible. Management considers the scheduled reversal of deferred income tax liabilities, projected future taxable income and tax planning strategies when making this assessment.

During 2008, we recorded an \$8.1 million valuation allowance to fully offset the deferred tax asset, which primarily related to the unrealized loss recorded as a result of the impairment of certain marketable securities (see also Note 3).

As of December 31, 2008, we have gross state research and development credit carryforwards of approximately \$8.3 million. The state carryovers have an indefinite carryover period.

At December 31, 2008, we have net operating loss ("NOLs") carryforwards of approximately \$1.1 million and \$1.8 million for federal and state purposes, respectively. The federal NOLs expire at various dates through 2024, and the state NOLs expire at various dates through 2014. Section 382 of the Internal Revenue Code imposes an annual limitation on the utilization of net operating loss carryforwards related to acquired corporations based on a statutory rate of return (usually the "applicable federal funds rate" as defined in the Internal Revenue Code) and the value of the corporation at the time of a "change in ownership" as defined by Section 382. The annual limitation under Section 382 of the Internal Revenue Code is approximately \$183,000.

Cumulative undistributed earnings of foreign subsidiaries for which no deferred income taxes have been provided approximated \$6.0 million at December 31, 2008. Deferred income taxes on these earnings have not been provided as these accounts are considered to be permanent in duration.

At December 31, 2008, we had gross unrecognized tax benefits of approximately \$4.3 million. Of this total, approximately \$3.6 million (net of the federal benefit on state issues) would affect our effective tax rate if recognized. We classify liabilities for unrecognized tax benefits for which we do not anticipate payment or receipt of cash within one year in noncurrent other liabilities.

We recognize interest and penalties related to uncertain tax positions in income tax expense. During 2008, we recognized approximately \$25,000 (net of tax benefit) of interest within our statement of income. We had accrued interest of approximately \$34,000 (net of tax benefit) at December 31, 2008.

We file income tax returns in the U.S. federal jurisdiction and in various state and foreign jurisdictions. With few minor exceptions, we are no longer subject to U.S. federal, state and local, or non-U.S. income tax examinations by tax authorities in material jurisdictions for the tax years ended prior to 2004.

A reconciliation of the beginning and ending amounts of gross unrecognized tax benefits is as follows (in thousands):

Unrecognized Tax Benefits – December 31, 2007	\$ 4,367
Gross increases – Tax positions taken in prior period	18
Gross decreases – Tax positions taken in prior period	(13)
Gross increases – Tax positions taken in current period	617
Lapse of statute of limitations	(669)
Unrecognized Tax Benefits – December 31, 2008	<u>\$ 4,320</u>

At December 31, 2008, we expect no material reductions in our recorded liability for unrecognized tax benefits to occur over the next 12 months.

8. Commitments and Contingencies

We lease our facilities under noncancelable operating leases for varying periods through February 2016, excluding options to renew. The following are the future minimum commitments under these leases (in thousands):

<u>Year Ending</u> <u>December 31,</u>	
2009	\$ 5,666
2010	5,106
2011	4,107
2012	3,724
2013	1,686
Thereafter	<u>441</u>
	<u>\$ 20,730</u>

Rent expense for the years ended December 31, 2008, 2007 and 2006 was approximately \$6.1 million, \$5.2 million and \$4.3 million, respectively.

Litigation

Ixia v. Charles Bettinelli and IneoQuest Technologies, Inc. In October 2005, Ixia filed a complaint against its former employee, Charles Bettinelli, and his then-employer, IneoQuest Technologies, Inc. ("IneoQuest"). The case is pending in Los Angeles County Superior Court. Ixia's complaint alleges breach of contract, misappropriation of trade secrets, intentional interference with contract and prospective business advantage, unfair competition, fraud, and violation of California Penal Code Section 502 (computer data access and fraud act). IneoQuest filed a motion for summary judgment in June 2008. In October 2008, IneoQuest's motion for summary judgment was denied in its entirety, and the matter is currently set for trial in June 2009. Ixia is seeking monetary damages in excess of \$10 million in addition to equitable relief.

In a related proceeding based on the same facts, Mr. Bettinelli was criminally charged with felony violation of Penal Code Section 502; he pleaded no contest to the felony charge in September 2008, which was reduced to a misdemeanor at sentencing upon his payment of \$75,000 to Ixia as restitution.

IneoQuest Technologies, Inc. vs. Ixia. In November 2008, IneoQuest filed a complaint against Ixia in the United States District Court for the Central District of California. The complaint alleges that Ixia makes and sells products that infringe a patent owned by IneoQuest, and that Ixia misappropriated IneoQuest's trade secrets, in addition to numerous other related claims. The patent at issue allegedly relates to a system and method for analyzing the performance of multiple transportation streams of streaming media in packet-based networks. IneoQuest seeks a permanent injunction enjoining Ixia from infringing the patent at issue and from using IneoQuest's trade secrets and confidential information, unspecified general and exemplary damages, and attorneys' fees and costs.

In January 2009, Ixia filed an answer and counterclaim to IneoQuest's complaint denying IneoQuest's claims and raising several affirmative defenses. Ixia has also asserted a counterclaim against IneoQuest seeking declaratory relief that Ixia has not infringed the IneoQuest patent and that such patent is invalid. Although the Company cannot predict the outcome of this matter, Ixia believes that it has strong defenses to IneoQuest's claims and is defending the action vigorously. The parties have not yet commenced discovery in this matter.

We are not aware of any other pending legal proceedings than the matters mentioned above that, individually or in the aggregate, would have a material adverse effect on our business, results of operations or financial position. We may in the future be party to litigation arising in the ordinary course of business, including claims that we allegedly infringe upon third party trademarks or other intellectual property rights. Such claims, even if without merit, could result in the expenditure of significant financial and managerial resources.

Indemnifications

In the normal course of business, we provide indemnification guarantees of varying scope to customers including against claims of intellectual property infringement made by third parties arising from the use of our products. The duration of these indemnifications and guarantees varies and in certain cases, is indefinite. Historically, costs related to these indemnification and guarantee provisions have not been significant and accordingly, we believe the estimated fair value of these indemnification and guarantee provisions is immaterial. With the exception of the product warranty accrual (see Note 1), no liabilities have been recorded for these indemnification and guarantee provisions.

9. Shareholders' Equity

Stock Award Plans

Our Amended and Restated 1997 Equity and Incentive Plan, as amended (the "1997 Plan"), provides for the issuance of share-based awards to our eligible employees and consultants. The share-based awards may include incentive stock options, nonqualified stock options, restricted stock units ("RSU") or restricted stock awards. Options become exercisable over a vesting period as determined by the Board of Directors and expire over terms not exceeding 10 years from the date of grant. The exercise price for options granted under the 1997 Plan may not be granted at less than 100% of the fair market value of our Common Stock on the date of grant (110% if granted to an employee who owns more than 10% of the voting shares of the outstanding stock). Options generally vest over a four-year period. In the event the holder ceases to be employed by us, all unvested options are forfeited and all vested options may be exercised within a period of up to 30 days after the optionee's termination for cause, up to three months after termination other than for cause or as a result of death or disability, or up to six months after termination as a result of disability or death. The 1997 Plan terminated in May 2008 and as such, no shares are available for future grant. As of December 31, 2008, 5.8 million awards remained outstanding under the 1997 Plan.

Our 2008 Equity Incentive Plan, as amended (the "2008 Plan"), provides for the issuance of share-based awards to our eligible employees and consultants. The share-based awards may include incentive stock options, nonqualified stock options, stock appreciation rights, restricted stock units ("RSU") or restricted stock awards. Options become exercisable over a vesting period as determined by the Board of Directors and expire over terms not exceeding 10 years from the date of grant. The exercise price for options granted under the 2008 Plan may not be granted at less than 100% of the fair market value of our Common Stock on the date of grant (110% if granted to an employee who owns more than 10% of the voting shares of the outstanding stock). Options generally vest over a four-year period. In the event the holder ceases to be employed by us, all unvested options are forfeited and all vested options may be exercised within a period of up to 90 days after termination other than (i) for termination for cause for which the vested options are forfeited on the termination date or (ii) as a result of death or disability for which vested options may be exercised for up to 180 days after termination. The 2008 Plan will terminate in May 2018, unless terminated sooner by the Board of Directors. As of December 31, 2008, we have reserved 8.6 million shares of our Common Stock for issuance under the 2008 Plan, 4.2 million shares of which were available for future grant as of such date.

Our Amended and Restated Non-Employee Director Equity Incentive Plan (the "Director Plan") provides for the issuance of share-based awards to our non-employee directors. We have reserved a total of 400,000 shares of Common Stock for issuance under the Director Plan. The grants under the plan are automatic and non-discretionary. Effective May 2007, the Director Plan provides for an initial grant to a non-employee director of 10,000 RSUs upon the director's appointment to the Board of Directors, which vest in eight equal quarterly installments. The Director Plan also provides for each non-employee director to be granted at least 4,000 RSUs upon the director's re-election to the Board of Directors at an annual meeting of shareholders. These subsequent grants vest in four equal quarterly installments commencing on the 15th day of the second calendar month during the first calendar quarter following the calendar quarter in which the RSUs are granted. The Director Plan will terminate in September 2010, unless terminated sooner by the Board of Directors. As of December 31, 2008, the Director Plan had approximately 165,000 shares available for future grant.

The following table summarizes stock option activity for the year ended December 31, 2008 (in thousands, except per share and contractual life data):

	Number of Options	Weighted Average Exercise Price Per Share	Weighted Average Remaining Contractual Life (in years)	Aggregate Intrinsic Value
Outstanding as of December 31, 2007	9,905	\$ 10.67		
Granted	4,332	8.11		
Exercised	(399)	3.86		
Forfeited/canceled	<u>(5,395)</u>	<u>12.82</u>		
Outstanding as of December 31, 2008	<u>8,443</u>	<u>\$ 8.30</u>	<u>3.94</u>	<u>\$ 2,889</u>
Exercisable as of December 31, 2008	<u>3,450</u>	<u>\$ 8.07</u>	<u>2.46</u>	<u>\$ 2,881</u>

Excluding the effects of the incremental gross stock-based compensation related to the Stock Option Exchange Program discussed below, the weighted average grant-date fair value of options granted for the years ended December 31, 2008, 2007 and 2006 was \$2.96, \$4.51 and \$5.69 per share, respectively. The total intrinsic value of options exercised during the years ended December 31, 2008, 2007 and 2006 was \$1.7 million, \$5.5 million and \$2.2 million, respectively. As of December 31, 2008, the remaining unrecognized compensation expense related to stock options is expected to be recognized over a weighted average period of 1.31 years.

The following table summarizes RSU activity for the year ended December 31, 2008 (in thousands, except per share data):

	Number of Awards	Weighted Average Grant Date Fair Value Per Share
Outstanding as of December 31, 2007	673	\$ 9.40
Awarded	1,090	5.94
Released	(227)	9.35
Forfeited/canceled	<u>(61)</u>	<u>9.28</u>
Outstanding as of December 31, 2008	<u>1,475</u>	<u>\$ 6.77</u>

The weighted average remaining contractual life and expense recognition period of the outstanding RSUs as of December 31, 2008 was 1.73 years.

Employee Stock Purchase Plan

The employee stock purchase plan (the "Plan") was adopted and approved in September 2000. The Plan became effective upon the closing of our initial public offering in October 2000. We have reserved a total of 3.5 million shares of Common Stock for issuance under the Plan, together with the potential for an annual increase in the number of shares reserved under the Plan on May 1 of each year. As of December 31, 2008, 693,000 shares were available for future issuance. For the years ended December 31, 2008 and 2007, 405,000 and 387,000 shares, respectively, were issued under the Plan.

The Plan permits eligible employees to purchase Common Stock, subject to limitations as set forth in the Plan, through payroll deductions which may not exceed the lesser of 15% of an employee's compensation or \$21,250 per annum.

The Plan is designed to provide our employees with an opportunity to purchase, on a periodic basis and at a discount, shares of our Common Stock through payroll deductions. The Plan was adopted and approved by the Board of Directors and the shareholders of the Company in 2000 and was amended in May 2003 and in April 2006. The Plan is implemented in a series of consecutive, overlapping 24-month offering periods, with each offering period consisting of four six-month purchase periods. Offering periods begin on the first trading day on or after May 1 and November 1 of each year. During each 24-month offering period under the Plan, participants accumulate payroll deductions which on the last trading day of each six-month purchase period within the offering period are applied toward the purchase of shares of our Common Stock at a purchase price equal to 85% of the lower of (i) the fair market value of a share of our Common Stock as of the first trading day of the 24-month offering period and (ii) the fair market value of a share of Common Stock on the last trading day of the six-month purchase period.

Stock-Based Compensation Expense

We calculated the estimated fair value for accounting purposes of each share-based award on the respective dates of grant using the Black-Scholes option-pricing model using the following weighted average assumptions:

	Year Ended December 31,		
	2008	2007	2006
Expected lives (in years)	4.0	4.5	4.1
Risk-free interest rates	2.4%	4.4%	4.8%
Dividend yield	0.0%	0.0%	0.0%
Expected volatility	48.2%	52.4%	61.0%

Warrants

As of December 31, 2006, there were warrants outstanding and exercisable to purchase 50,000 shares of Common Stock with an exercise price of \$7.00 per share. During 2007, these warrants were exercised and there were no warrants outstanding as of December 31, 2007 and 2008.

Stock Buyback Programs

In November 2008, we announced a stock buyback program to repurchase up to \$25 million of our Common Stock. This program is in addition to the \$50 million repurchase program, which was announced in August 2007 and completed in June 2008. During 2008, we repurchased 5.8 million shares of our Common Stock at an average purchase price of \$7.51 per share. During 2007, we repurchased 918,935 shares of our Common Stock at an average purchase price of \$10.00 per share. These repurchased shares remain authorized, but are no longer issued and outstanding.

Option Exchange Program

During the second quarter of 2008, our shareholders approved a Stock Option Exchange Program (the "Program"), which allowed current employees, other than executive officers and members of our Board of Directors, to exchange certain underwater options for fewer new options. On August 7, 2008, we completed the Program by canceling 3.7 million old options and granting 2.6 million new options. The canceled old options had per share exercise prices ranging from \$9.30 to \$21.50, and the new options were granted with an exercise price of \$8.58 per share, the closing price of our common stock on August 7, 2008 as reported on the Nasdaq Global Select Market. The new options have vesting schedules ranging from approximately one to four years and have contractual terms ranging from approximately three to six years. The additional gross stock-based compensation expense of \$3.1 million related to this Program will be recognized over the vesting periods of one to four years from the date of grant of the new options.

10. Retirement Plan

We provide a 401(k) Retirement Plan (the "Plan") to eligible employees who may authorize contributions up to IRS annual deferral limits to be invested in employee elected investment funds. As determined annually by the Board of Directors, we may contribute matching funds of 50% of the employee contributions up to \$2,500. These matching contributions vest based on the employee's years of service with us. For the years ended December 31, 2008, 2007 and 2006, we expensed and made contributions to the Plan in the amount of approximately \$741,000, \$713,000 and \$674,000, respectively. In January 2009, we suspended the matching of employee 401(k) contributions.

11. Earnings Per Share

The following table sets forth the computation of basic and diluted (loss) earnings per share for the periods indicated (in thousands, except per share data):

	Year Ended December 31,		
	2008	2007	2006
<i>Basic Presentation</i>			
Numerator:			
Net (loss) income	\$ (15,895)	\$ 7,006	\$ 13,481
Denominator:			
Weighted average common shares	<u>65,087</u>	<u>67,936</u>	<u>67,005</u>
Basic (loss) earnings per share	<u>\$ (0.24)</u>	<u>\$ 0.10</u>	<u>\$ 0.20</u>
<i>Diluted presentation</i>			
Denominator:			
Shares used to calculate basic	65,087	67,936	67,005
Weighted average effect of stock options and other share-based awards	<u>-</u>	<u>1,450</u>	<u>1,787</u>
Denominator for diluted computation	<u>65,087</u>	<u>69,386</u>	<u>68,792</u>
Diluted (loss) earnings per share	<u>\$ (0.24)</u>	<u>\$ 0.10</u>	<u>\$ 0.20</u>

The diluted earnings per share computations for the years ended December 31, 2007 and 2006, exclude employee stock options and other share-based awards to purchase 7.0 million and 6.4 million shares, respectively, which were antidilutive.

12. Quarterly Financial Summary (Unaudited)

	Three Months Ended							
	Dec. 31 2008 ⁽¹⁾	Sep. 30 2008 ⁽¹⁾	Jun. 30 2008	Mar. 31 2008	Dec. 31 2007	Sep. 30 2007	Jun. 30 2007 ⁽²⁾	Mar. 31 2007
(in thousands, except per share data)								
Statement of Income Data:								
Total revenues	\$40,972	\$47,324	\$45,920	\$41,651	\$46,385	\$44,034	\$42,999	\$40,703
Total cost of revenues	9,958	10,238	11,012	10,456	10,132	10,608	10,722	10,328
Gross profit	31,014	37,086	34,908	31,195	36,253	33,426	32,277	30,375
(Loss) income before income taxes	(19,164)	509	2,762	19	5,526	2,994	1,057	(452)
Net (loss) income	(18,265)	483	1,781	106	4,439	1,926	1,400	(759)
(Loss) earnings per share:								
Basic	\$ (0.29)	\$ 0.01	\$ 0.03	\$ 0.00	\$ 0.07	\$ 0.03	\$ 0.02	\$ (0.01)
Diluted	\$ (0.29)	\$ 0.01	\$ 0.03	\$ 0.00	\$ 0.06	\$ 0.03	\$ 0.02	\$ (0.01)

⁽¹⁾ In the third and fourth quarters of 2008, we recorded other-than-temporary impairment charges of \$4.3 million and \$15.9 million, respectively, related to our previous investments in auction rate securities and our investment in long term bonds issued by Lehman Brothers Holdings, Inc. See Note 3 for additional information.

⁽²⁾ In the second quarter of 2007, we recorded an impairment charge of \$3.3 million, which consists of the impairment of purchased technology of \$1.5 million and the impairment of certain intangible assets of \$1.8 million related to the acquisitions of Communication Machinery Corporation in July 2005 and the mobile video test product line from Dillithium Networks in January 2006. See Note 6 for additional information.

EXHIBIT INDEX

<u>Exhibit No.</u>	<u>Description</u>
10.12	Compensation of Named Executive Officers and Chief Executive Officer for 2008
21.1	Subsidiaries of the Registrant
23.1	Consent of PricewaterhouseCoopers LLP, Independent Registered Public Accounting Firm
31.1	Certification of Chief Executive Officer of Ixia pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2	Certification of Chief Financial Officer of Ixia pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.1	Certifications of Chief Executive Officer and Chief Financial Officer of Ixia pursuant to Rule 13a-14(b) under the Exchange Act and 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

Compensation of Named Executive Officers and Chief Executive Officer for 2008

The executive officers named in the summary compensation table in the proxy statement for Ixia's 2008 Annual Meeting of Shareholders (the "Named Executive Officers"), as well as the Company's President and Chief Executive Officer, have their base salaries determined annually by the Compensation Committee of the Board of Directors (the "Compensation Committee"). For 2008, such determinations were effective as of April 1, 2008. The Named Executive Officers and the Company's President and Chief Executive Officer are all "at will" employees and do not have written or oral employment agreements with the Company. The Company, upon the approval of the Committee, retains the right to unilaterally decrease or increase such officers' base salaries at any time during the fiscal year. The annual base salaries for the Named Executive Officers and for the Company's President and Chief Executive Officer (effective April 1, 2008) are as follows:

Executive Officer	Annual Base Salary
Atul Bhatnagar ⁽¹⁾ President and Chief Executive Officer	\$390,000
Errol Ginsberg Chief Innovation Officer and Former Chief Executive Officer	375,000
Thomas B. Miller Chief Financial Officer	262,500
Victor Alston Senior Vice President, Product Development	262,500
Ronald W. Buckly Senior Vice President, Corporate Affairs and General Counsel	262,500
Walker H. Colston, III Vice President, Engineering Operations	250,000

(1) Mr. Bhatnagar became the Company's President and Chief Operating Officer in September 2007 and has served as President and Chief Executive Officer since March 2008.

The above-named executive officers are also eligible to participate in the Company's incentive compensation plans, including:

- (i) The Company's bonus plans for its executive officers;
- (ii) The Company's Amended and Restated 1997 Equity Incentive Plan (filed as Exhibit 4.1 to the Company's Registration Statement on Form S-8 (Reg. No. 333-117969) filed with the Commission on August 5, 2004);
- (iii) The Company's 2008 Equity Incentive Plan, as amended (filed as Exhibit 10.1 to the Company's Current Report on Form 8-K (File No. 000-31523) filed with the Commission on June 3, 2008); and
- (iv) The Company's Employee Stock Purchase Plan (filed as Exhibit 10.3 to Amendment No. 1 to the Company's Registration Statement on Form S-1 (Reg. No. 333-42678) filed with the Commission on September 5, 2000), as amended by (1) Amendment No. 1 thereto (filed as Exhibit 4.2 to the Company's Registration Statement Form S-8 (Reg. No. 333-107818) filed with the Commission on August 8, 2003), and (2) the Supplemental Provisions thereto (filed as Exhibit 10.1 to the Company's Current Report on Form 8-K (File. No. 000-31523) filed with the Commission on April 20, 2006).

Subsidiaries of the Registrant

<u>Name of Subsidiary*</u>	<u>State or Other Jurisdiction of Incorporation or Organization</u>
Communication Machinery Corporation	United States
G3 Nova Technology, Inc.	United States
Ixia Europe Limited	United Kingdom
Ixia Federal Systems, Inc.	United States
Ixia K.K.	Japan
S.C. Ixia SRL	Romania
Ixia Pte. Ltd.	Singapore
Ixia Technologies Private Limited	India
Ixia (Beijing) Trading Company Limited	China

* The subsidiaries of the Registrant do not do business under any name other than as listed above.

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (Nos. 333-48814, 333-66382, 333-107818, 333-117969, 333-124599, 333-133718, 333-143055 and 333-151764) of Ixia of our report dated March 5, 2009 relating to the consolidated financial statements and the effectiveness of internal control over financial reporting, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP

Los Angeles, California
March 6, 2009

Certification of Chief Executive Officer of Ixia pursuant to
Rule 13a-14(a) under the Exchange Act,
as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Atul Bhatnagar, certify that:

1. I have reviewed this Annual Report on Form 10-K of Ixia;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 6, 2009

_____/s/ ATUL BHATNAGAR
Atul Bhatnagar
President and Chief Executive Officer

Certification of Chief Financial Officer of Ixia pursuant to
Rule 13a-14(a) under the Exchange Act,
as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Thomas B. Miller, certify that:

1. I have reviewed this Annual Report on Form 10-K of Ixia;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 6, 2009

/s/ THOMAS B. MILLER

Thomas B. Miller
Chief Financial Officer

Certifications of Chief Executive Officer and Chief Financial Officer of Ixia Pursuant to
Rule 13a-14(b) under the Exchange Act and 18 U.S.C. Section 1350, as Adopted Pursuant to
Section 906 of the Sarbanes-Oxley Act of 2002

In connection with the Annual Report of Ixia (the "Company") on Form 10-K for the period ended December 31, 2008 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), we, Atul Bhatnagar, President and Chief Executive Officer of the Company, and Thomas B. Miller, Chief Financial Officer of the Company, certify, to the best of our knowledge, pursuant to Rule 13a-14(b) under the Securities Exchange Act of 1934 and 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 6, 2009

/s/ Atul Bhatnagar
Atul Bhatnagar
President and Chief Executive Officer

Date: March 6, 2009

/s/ Thomas B. Miller
Thomas B. Miller
Chief Financial Officer

Directors and Executive Officers

Board of Directors

Jean-Claude Asscher

Chairman Emeritus

Ixia

Errol Ginsberg

Chairman of the Board and

Chief Innovation Officer

Ixia

Laurent Asscher

President and

Chief Executive Officer

Airtek Capital Group

Atul Bhatnagar

President and

Chief Executive Officer

Ixia

Jonathan Fram

Managing Partner

Maveron III LLC

Gail E. Hamilton

Retired Executive Vice President

Symantec

Jon F. Rager

Private Investor

Executive Officers

Atul Bhatnagar

President and

Chief Executive Officer

Tom Miller

Chief Financial Officer

Errol Ginsberg

Chief Innovation Officer

Victor Alston

Senior Vice President

Product Development

Ronald W. Buckly

Senior Vice President

Corporate Affairs and

General Counsel

Alan Grahame

Senior Vice President

Worldwide Sales

Walker H. Colston, II

Vice President

Engineering Operations

Raymond de Graaf

Vice President

Operations

Chris Williams

Vice President

Human Resources

Corporate Information

Independent Accountants
PricewaterhouseCoopers LLP
Los Angeles, California

Legal Counsel
Bryan Cave LLP
Los Angeles, California

Transfer Agent
Computershare Trust Company, N.A.
P.O. Box 43070
Providence, Rhode Island 02940-3070
800.962.4284

Corporate Headquarters
Ixia
26601 West Agoura Road
Calabasas, California 91302
818.871.1800

Common Stock
The Company's common stock is quoted on the Nasdaq Global Select Market under the symbol XXIA.

Web Site
Additional information about the Company is available on its web site at www.ixiacom.com.

Report on Form 10-K
A copy of the Company's Annual Report on Form 10-K for the year ended December 31, 2008, is available, without charge, upon written request to Investor Relations, Ixia, 26601 W. Agoura Road, Calabasas, California 91302 or via the Internet at www.ixiacom.com.

Annual Meeting of Shareholders
9:00 AM, Thursday
May 28, 2009
Renaissance Hotel
30100 Agoura Road
Agoura Hills, California 91301



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